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Improving the Quality of Nursing Documentation in Home Health Care Setting

Chidiadi Obioma
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Walden University

College of Health Sciences

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Chidiadi Obioma

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Walden University
2017

Abstract

Improving the Quality of Nursing Documentation in Home Health Care Setting

by

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MS, Walden University, 2013

BS, University of Port-Harcourt, 1996

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

Walden University

March, 2017

Abstract

Poor nursing documentation of patient care was identified in daily nurse visit notes in a health care setting. This problem affects effective communication of patient status with other clinicians, thereby jeopardizing clinical decision-making. The purpose of this evidence-based project was to determine the impact of a retraining program on the quality of documentation of patient care in nurses' notes in a home health agency in central Texas. A retrospective audit of quality of nursing documentation using the Nurse and Midwifery Content Audit Tool (NMCAT) was done. A pre- and posttest design was used. A convenience sample of de-identified nurses' notes (80 pre- and 80 post) was selected from active patient records in the agency ($n = 160$). Descriptive and inferential statistics from the project showed that there was improved quality for the 15 criteria representing quality nursing documentation. After the educational intervention, documentation of patient's status if changed or unchanged improved to 80%, and patient's response to treatment improved (57% to 85%), entries were written as incidents occurred improved (53% to 64%). The nurse refers to the patient by name improved (0% to 66%). These findings were an indication of practice change, validating the need for periodic audits of nurses' notes in the agency in order to demonstrate compliance with quality standards. Based on the project findings, a retraining program is recommended to improve structured nursing documentation in a home health agency. This project is likely to contribute to social change as it enhanced the information communicated to other health care providers, coordination of care, and patient outcomes.

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Dedication

I dedicate this project to my husband, Christian Obioma for his unfailing love and support and to my children, Jessica, Olivia, Victor and Michael for their love.

Acknowledgments

I want to thank Dr. Amelia Nichols and Dr. Donna Bailey for their continued support and feedback. They believed in me. I thank my sisters and friends for their continued support and encouragement.

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Section 1: Nature of the Project

Nursing documentation is an essential function of professional nursing practice (Okaisu Kalikwan, Wanyana, & Coetzner, 2014). The documentation should be factual, current, and comprehensive to provide consistent information about the assessment, care provided, and evaluation of patient responses to care (Okaisu et al., 2014). Current health care systems require that documentation ensure continuity of care, provide legal evidence of nursing care provided, and support evaluation of quality patient care (Scruth, 2014). To enhance patient outcomes that include patient safety, accurate and complete clinical information is required as a valid and reliable source to be used for communication, quality improvements, research, and policymaking (Thoroddsen, Sigurjonsdottir, Ehnofors, & Ehreberg, 2013).

Some essential characteristics of quality information in patient records include completeness and comprehensiveness (Thoroddsen et al., 2013). Nursing documentation based on the nursing process facilitates effective care as patient's needs can be traced from assessment and nurses are empowered in clinical decision-making (Ofi & Sowunmi, 2012). Criteria for effective or quality documentation include use of common vocabulary, legible writing, use of authorized abbreviations and symbols (Ofi & Sowunmi, 2012). Quality criteria of nursing documentation includes completeness, quantity, legibility, patient identification, chronological report of events, comprehensiveness of description, nursing assessment, objective information, signature, date and timeliness (Wang, Hailey, & Yu, 2011).

Incomplete documentation cannot provide the necessary foundation for provision of quality care, quality improvement or effective decisions on allocation of resources (Gershater, Pilhammar, & Roijer, 2010). Therefore, it is crucial that nursing assessments, care plans, implementation of interventions, and evaluation of results should be systematically and accurately communicated through effective documentation (Gjevjon & Helleso, 2009; Okaisu et al., 2014). Patient safety has been compromised due to failure of nurses documenting nursing processes effectively and completely (Paans, Sermueus, Nieweg, & Van der Schans, 2010). When documentation is inadequate, it reflects substandard care with potential for litigation (Ofi & Sowunmi, 2012).

The purpose of the project was to provide nurses with evidence-based educational information. The evidence-based information enhances knowledge and competence in documenting patient care effectively. The impetus for this project arose from a review of patient records completed at the project site that related to their practice needs and addressed effective communication of patient status among health care providers involved in patient care. The organization is a home health care organization that served more than ninety patients in their homes. The organization had physicians, twenty-three nurses, eight nurse assistants, and five nonclinical office staff. The chronic diseases most often seen among the patients served by the organization are arthritis, diabetes, cardiovascular disease, and chronic pain syndromes. The prognosis of patients has been fair. The average age of the patients seen by the organization was 68 years. Sixty percent of the patients were European Americans, 20% were African Americans, and 20% were

other descents. Women made up 69% of the population, and men made up 31% of the population served.

Attention to effective documentation is important for ensuring that nurses are delivering quality holistic care to their patients. The project provided education to bridge educational deficits of staff nurses with regard to effective documentation of care provided by the organization. In this project, I also demonstrated how nursing documentation education could increase and improve the content of information documented and show quality of care provided in this setting.

Practice Problem

At the local study site, there was poor documentation of patient care as noted in home visit notes. Poor documentation affects effective communication of patient status with other clinicians, thereby affecting clinical decision-making and patient outcomes. In a review of patient medical records in the agency, I found poor documentation of nursing assessments and other relevant patient care information. In some patient records, I noted that relevant information was missing or the notes were incomplete. Some of the notes reviewed lacked adequate information for use in quality assurance, facilitation of patient outcomes, and for enhancement of clinical decision-making. The documents did not meet federal and regulatory criteria for adequate reimbursement.

Omitting key information in a visit note can compromise patient care and may lead to an increase in health care costs. Poor documentation can negatively affect the effectiveness, quality and visibility of nursing work (Inan & Dinc, 2013). Good clinical documentation is a part of quality patient care and shows accountability. Documentation

of patient services in home health care is a prerequisite for continuity of care (Gjevjon & Helleso, 2010). Nurses use progress notes on patient care to communicate patient care, assess and record patients' status (Tower, Chaboyer, Green, Grer, & Wallis, 2012). Effective documentation shows evidence of care given and patients' responses, and evaluation of care given (Tower et al., 2012). Ineffective documentation may result in patients missing treatments or substandard or inappropriate or delay in treatments (Tower et al., 2012). Therefore, there is a need for improvement in the quality of patient care documented in patient records.

There was a significant gap with regard to documentation of home health services (Nokes et al., 2012). This has become a national issue (Nokes et al., 2012). There is a need for effective comprehensive nursing documentation in home health care (Gjevjon & Helleso, 2010). According to Jefferies, Johnson, Nicholls, Langdon, and Lad (2012), the need to improve nursing documentation has been a topic in literature. Issues related to poor nursing documentation need to be addressed (Blair & Smith, 2012). A retraining program on nursing documentation was agreed upon as the intervention needed to address ineffective documentation in daily nurse visit notes.

Purpose

The purpose of this quantitative, descriptive project was to improve nurses' documentation skills in regards to the content of information documented and to provide education to fill knowledge deficits. The project increased the content of nursing care documented in patient progress notes, thereby enhancing the quality of care provided in a clinical practice setting.

Project Objectives

This project had two objectives:

- By June 30, 2016, at least 99% of nurses are aware that a retraining session to improve nursing documentation is being planned.
- By July 27, 2016, at least 80% of home health nurses will demonstrate at least 50% increase in nursing documentation skills as measured by The Nursing and Midwifery Content Audit Tool (NMCAT) audit tool.

In a review of nurses' notes at the project site, I found inadequate documentation of patient care among nurses related to the content of information documented. This aligned with the results from literature on related topics. These findings established the need for the project. The collection of anonymous data protected the patients and nurses' privacy. The announcement of the educational in-service was sent to staff via e-mails, and was discussed during the organization's monthly meetings. Nurses and all other staff members were not paid or given an incentive to attend the training. All staff nurses and the administrative nurse were invited to attend and participate in the training.

Project Question

What is the effect of a documentation retraining program for home health nurses on the quality of documentation of patient care in daily visit notes?

Project Hypothesis: *There will be a difference in the quality of nursing documentation after re-training.*

Ho: There is not a significant difference between the two means

$M1=M2$

H1: There is a significant difference between the two means

$M1 \neq M2$

Significance of the Project

Nurses are accountable to their clients, organization, and the society.

Documentation exists as daily evidence of nursing care provided to patients. It provides ways of understanding nursing and nursing knowledge. To ensure the delivery of effective and safe care, adequate documentation is necessary. Poor nursing documentation is inadequate for evaluating the nursing care provided. It lacks completeness and comprehensiveness of data leading to poor patient outcomes and an increase in health care costs. Poor nursing documentation has been linked to failure in detecting patients whose clinical condition were worsening (Scruth, 2014).

Poor documentation contributes to the occurrence of adverse events in health care (Okaisu et al., 2014). Effective nursing documentation reduces inefficiencies and decreases the probability of medical errors. It helps in clinical-decision making for improved patient care, thereby helping to reduce health care costs (Okaisu et al., 2014). In addition, it affects financial reimbursement as third party payers evaluate documentation in patient record to determine whether payment is appropriate (Okaisu et al., 2014).

According to Owen (2005), documentation of patient care is extremely important in community settings. Nurses can legally communicate the care provided by

documenting effectively. However, some nurses continue to document their care inadequately (Owen, 2005).

Implications for Social Change

The project contributes to social change by disseminating information on the documentation of relevant information that enhances communication of information to other health care providers in the coordination of care. It also shows the quality of care provided to patients in health care practice. The project information provided ideas and resources for an organization to consider when implementing nursing documentation training for clinical staff members. The professional development that resulted from this project improved the content of nursing care documented in patient visit notes and helped to increase the documentation of relevant information for coordination of care. Nursing documentation training for the nurses is necessary for improved documentation of patient care. Patients have improved quality of care when nurses know relevant information to include during the documentation of care.

This project gave me the opportunity to analyze ways to educate nursing staff members for effective documentation of nursing care. The project can be used to evaluate and establish best practice interventions for educating staff on nursing documentation of care provided. The intent of the project was to provide an evidence-based training on nursing documentation for organizations to use. The training also contributed to nurse awareness of relevant information to document, how it affects communication and coordination of care with other health care providers.

The findings of this project provided evidence that an educational intervention will improve nurses' documentation skills and content documented after patient care. Nurses and clinicians caring for individuals in the clinical practice setting need the skills and knowledge to document effectively. Professional care is reflected by good documentation, which not only reflects nursing care provided but should also communicate a patient's health status and progress, thus providing cost-effective care (Hanebo, Kihlgren & Ljuggren, 1999). Some nurses have to be reminded of their roles and how their roles are integrated into the delivery of high quality care. The quality of their documentation may be a reflection of the standard of their practice. Accuracy in documentation is a means of safeguarding nursing accountability (Prideaux, 2011).

Quality information in nursing records promotes quality care because information will be readily accessible and used by other health care professionals as a part of multidisciplinary care for patients. Therefore, the role of effective home visit notes in communicating information to all health professionals and informing their care decisions means that quality records can in turn contribute to appropriate quality care (Prideaux, 2011). It is important for nurses to ensure that their documentation meets high standards. Identified barriers to effective documentation practice should be addressed, and overcome. This will enable nurses to honor the duty of care that they have toward their patients (Prideaux, 2011). Bjorvell, Wredling, and Thorell-Ekstrand (2002) suggested follow up training and supervision for a longer period is necessary as well as continuous peer review regarding the documentation process in patient records.

Organizations may provide competency training and educational resources to position nurses with the ability to document effectively and provided relevant information for communication and coordination of care with other health care professionals (Paans et al., 2010).

Definitions of Terms

The following terms were used in this project:

Keywords: nursing documentation, VIPS, nursing process, intervention, record audit, attitude, barriers to documentation, completeness, content.

Content: Documenting nursing information about a care process that is valuable, in relationship with the five steps of the nursing process (Wang, 2014).

Intervention: A nursing documentation educational program

Nursing documentation: This is written information that communicates patient status, care or services provided during a visit (Machudo & Mohidin, 2015).

Nursing process: This is a rational and systematic problem solving approach used as a scientific framework to organize individualized nursing care through phases of nursing of assessment, diagnosis, planning, implementation and evaluation (Inan & Dinc, 2013).

Record Audit: Use of nursing documentation audit instrument to retrospectively audit patient records for the content and comprehensiveness of patient records in documentation of essential elements of nursing care at two different points: before the intervention, and two weeks after the intervention.

VIPS model: This is an acronym formed from the Swedish words for well-being, integrity, prevention and security and the model aims at producing a problem-based home visit note to guarantee legal compliance. It is used in both electronic and paper-based patient records (Bjorvell, Wredling & Thorell-Ekstrand, 2003).

Assumptions and Limitations

It was assumed that the quality of nurses' documentation skills audit score will be greater after implementation of the training program. The change of attitudes and values regarding nursing process and documentation is imperative in order to achieve a substantial change in nursing documentation (Bjorvell et al., 2002). Poor nursing documentation is related to adverse patient safety. Compromised patient safety is related to poor communication among health care providers, incomplete documentation, and a lack of relevant information in patient records (Bjorvell et al., 2002). These conditions are more likely to be found among nurses in home health where nurses' practices are more autonomous.

While there is no evidence in the literature, that improved documentation may enhance the quality of care or lead to a change in practice, it is reasonable to assume that good documentation would contribute to safety and continuity in patient care (Thoroddesen et al., 2013). In terms of nursing documentation content, it was assumed that the information documented in the daily nurse visit notes were complete and accurately reflected reality. I assumed that all the nurses in the organization desired to attend the educational in-service. Also, I assumed that the audit tool used for the pretest

and posttest was applicable to the practice setting. Finally, I assumed that the nurses will improve their documentation of nursing care provided using what they learned from the educational in-service.

A bias of the project was the use of nurses' notes from one home health agency. This may not be representative of all home health nurses' notes. A random sampling of nurses' notes would be needed to increase the generalizability of the results. Secondly, I did not require nurses to give their definition of effective nursing documentation. Therefore, only modest extrapolations can be made on the applicability of the findings from this project to other situations.

Summary

Documentation is an integral part of nursing practice in nurses' daily professional work. The documentation must show continuity and quality of care through communication, legal evidence of the process, outcomes of care delivered, evaluation of quality, and effectiveness of care. It should promote cost-effective care and provide evidence for research and quality assurance. In this era of health care reform and fiscal responsibility, the nurse has an obligation to accurately document to ensure timely reimbursement. Providing inaccurate information or omitting information can affect decisions about patient care adversely. Accuracy of nursing documentation is dependent on three concepts: reflection of nursing care, comprehensiveness, and painting a holistic picture of patient status and clarity in terms used.

Implementation of a face-to -face educational program and organizational changes for nurses will improve the accuracy of nursing documentation. Nurse

knowledge and attitudes regarding accurate documentation will be improved significantly. Home care is unique from other health care settings. Its system of documentation is different. Nevertheless, a significant gap with regard to documentation of home health care services has been noted through the literature search (Nokes et al. 2012). The nursing process model was used to facilitate quality nursing documentation in the home health care setting.

In Section 2, I will discuss the need for nurses to document effectively.

Documenting relevant information improves communication and the coordination of care. I will address poor nursing documentation issues that have been documented in the literature as well as the problems noted when reviewing patient visit notes in the clinical setting. Also, I will review the objective of providing nursing documentation education and how it will increase the content of information that is relevant to patient care and the communication of patient status to other health care providers.

Section 2: Review of Literature and Theoretical Framework

Introduction

This project was aimed at examining and improving the documentation of patient care of home health nurses to improve their documentation skills and ability to provide relevant information in home care patients' visit notes for patients with chronic illnesses. In this section, I will review the literature on nursing documentation and its benefit in enhancing communication and coordination of care with other health care providers. In this section, I will examine the literature on the benefits of adequate nursing documentation and its importance in nursing care and clinical practice.

Nursing documentation is a critical aspect of nursing practice. Effective documentation of nursing care increases knowledge about patient medical status among clinicians and enhances clinical decision-making for better patient outcomes. In the project, I identified the problem of poor nursing documentation of patient care in daily visit notes in a home health. The purpose of the project was to improve the quality of nursing documentation by developing, implementing, and evaluating the impact of an educational intervention designed to enhance the documentation skills of nurses. Nursing documentation has been documented in several studies. There have been numerous articles published over the last 20 years on methods to improve documentation with little evidence of change (Jefferies et al. 2012).

Search Methods

A search for relevant publications was undertaken on seven electronic databases (CINAHL Plus Full Text, CINAHL & MEDLINE Simultaneous Search, MEDLINE with

Full Text, OVID Nursing Journals Full Text, ProQuest Nursing & Allied Health Source, Wiley InterScience and PubMed). The search terms include *nursing documentation*, *audit*, *evaluation*, *quality*, *quality criteria*, *VIPS model*, and *nursing process*. The search was restricted to articles published in English from 1999 to date. I retrieved 110 articles related to nursing documentation. Sixty of the articles, mostly retrospective studies, were relevant to my study and met the inclusion providing evidence of use of education to improve nursing documentation. In selecting papers, inclusion criteria included publications on nursing documentation: nursing documentation audit studies, any type of nursing documentation system: paper, electronic, structured or non-structured, any article evaluating nursing documentation, or any component of nursing documentation such as nursing assessment, evaluation, and progress notes. Also, audit studies conducted in settings such as hospital, nursing home, or community were included. Exclusion criteria included papers not dealing with nursing documentation, any publication on nursing documentation that did not address quality or content, care plan audits or use of standardized language, papers reporting documentation by other health professionals other than nursing, or duplicated papers on the same study.

Specific Literature

Ehrenberg and Ehnfors (1999) studied the effects of an educational intervention on content and comprehensiveness of nursing care documentation in the patient records in a nursing home. A review of patient records ($n = 120$) from nursing homes in six Swedish municipalities with a study and reference group was done. The nursing staff from all of the nursing homes from three municipalities received education concerning

nursing process and documentation according to the VIPS model (Ehrenberg & Ehnfors, 1999). A retrospective audit of all nursing notes in patient records was made before and after the educational. Ehrenberg and Ehnfors reported improvements in the contents of the records in the study group with notes on nursing history being doubled. Also, significant increases were noted in the recording of nursing diagnoses, goals and discharges. No corresponding changes were noted in the reference group. Ehrenberg and Ehnfors reported that no record met the requirements of the national regulations on nursing documentation or followed the nursing process thoroughly.

Johnson, Jefferies and Langdon (2010), in developing the standards for quality nursing documentation, implemented an educational program and also initiated audit of a sample of health care records within a clinical setting. Johnson et al. explored the use of an educational intervention to improve nursing documentation of patient care.

Jefferies et al. conducted an educational program with one –to-one coaching in the clinical environment. A concurrent mixed-methods approach was used that included a pre-posttest intervention and a control design for the quantitative component. No intervention was given to the control group.

The educational training was an introductory workshop with 2 weeks of coaching. As a part of the study, quantitative data were obtained using health record audit findings. The 15 criteria associated with the seven principles of quality documentation were examined in health records using the NMCAT audit tool (Jefferies et al. 2012). Improvement in nursing documentation was demonstrated in both the intervention and comparison groups (Jefferies et al., 2012).

Okaisu et al. (2014) used staff training as one of its approaches to improve nursing documentation. A 5- day workshop on documentation was incorporated in new nurse orientation to address identified gaps in documentation. The educational program included classroom-based training and mentorship (Okaisu et al., 2014). Muller-Staub, Lavin, Needham, and van Achterberg (2007) identified improvements in nursing documentation after an educational intervention using a pre-posttest design.

General Literature

The problem noted in a home health agency located in an urban central Texas City was poor documentation of patient care in daily patient visit notes. For this reason, the purpose of this project was to assess the quality of nursing documentation following an educational program on content to be documented in nurses' notes.

Nurses are involved in patients' daily life with all of the dimensions that affect their health condition (Gjevjon & Helleso, 2010). It is important for nursing documentation to be comprehensive. Nursing documentation in patient records have several purposes including making nursing care visible, patient safety, information exchange, and for fulfilling legal and professional demands (Gjevjon & Helleso, 2010). In a review of patient records, I found that documentation of nursing care was inadequate as it lacked relevant information and often incomplete (Daskein, Moyle & Creedy, 2010; Gershater, Pilhammar & Roijer, 2010, Gjevjon & Helleso, 2010; Ofi & Sowunmi, 2012; Tornvall & Wilhelmsson, 2008). Okaisu et al. (2014) revealed that substandard documentation of nursing assessments was associated with in-hospital and post discharge mortality. According to Laudermitch et al. (2010), failure by Emergency Medical

Service (EMS) personnel to document basic measures of patient physiology (heart rate, systolic blood pressure, and respiratory rate) at the scene has been associated with increased risk of mortality.

Despite the legal obligations for nursing documentation and its proven benefits that have been stressed in recent years, the motivation for nurses to carry out nursing documentation appears to be low (Hansebo, Kihlgren & Ljunggren, 1999). Thus, there is need for an intervention to improve nursing documentation in home health care (Daskein, et al. 2010; Gjevjon & Helleso, 2010).

Several researchers have identified barriers to problem-based nursing documentation as perceived by nurses. An interview with six nurses including registered nurses (RNs) and Licensed Vocational Nurses (LVNs) revealed perceptions of barriers such as inadequate charting system, a lack of value, time constraints, and difficulty in using correct phrasing (Bjorvell, et al. 2002). Fourteen RNs reported barriers such as excessive administrative forms, a lack of a distinct professional identity and standardized nursing language, a lack of time to document, and a lack of knowledge of nursing process (Bjorvell, et al., 2002). Negative attitude towards change, inability to see the benefits of nursing documentation, a lack of consistent record systems and routines, a lack of time, a lack of support from supervisors and colleagues, organizational obstacles, and difficulties in writing were some of the barriers identified by Bjorvell et al., (2002). Related factors to poor nursing documentation include limited nurses' competencies, motivation and confidence, ineffective nursing procedures, inadequate nursing audit, poor supervision, and a lack of staff development (Ofi & Sowunmi, 2012). Nursing documentation is a part

of nursing practice, and it has been emphasized as an area of priority in nursing research and development (Ehrenberg et al., 1996). There have been demands for more efficient care and quality improvement in nursing documentation (Ehrenberg et al., 1996).

Several scholars have explored, described, or attempted to improve the content and comprehensiveness of nursing documentation (Bjorvell et al., 2002, 2003; Ehrenberg et al., 2001; Tornvall et al., 2004). Most of these studies were carried out in hospitals or nursing homes; only a few identified studies were concerned with overall comprehensiveness of nursing documentation in community settings (Gjevjon & Helleso, 2010). Because community nursing differs significantly from institutionalized health care, there is a need to explore the nature of nursing documentation in home health nursing (Gjevjon & Helleso, 2010). Although most of the previous studies have been performed on paper-based patient records (Bjorvell et al., 2002, 2003; Ehrenberg et al., 2001; Tornvall et al., 2004), most of the patient records in home health are now electronic. This gives rise to expectations of a more organized and visible nursing documentation than previous scholars found (Gjevjon & Helleso, 2010).

For the home health agency, the overall purpose is to improve the nurses' skills in comprehensive documentation. The long-term goal is to achieve professional nursing practice that meets the needs of patients and their families, as well as other providers.

Due to the significance of nursing documentation and the consequences of poor documentation practices, there have been efforts to improve its quality (Okaisu et al., 2014). Several studies have been conducted to improve the content and completeness of nursing documentation in patient records. According to Hughes (2008), deficiencies

noted in nursing records have led to a series of interventions aimed at improving nursing documentation. Education and change in organizational culture have been used as strategies to address the problem.

Okaisu et al. (2014) recommended that multiple interventions including training, change in organizational culture, and modification of systems would help to improve the quality of nursing documentation. Poor educational preparation of nurses on the nursing process concept was linked to poor documentation by nurses (Ofi & Sowunmi, 2012). Ofi & Sowunmi, (2012) confirmed that use of continuing education, supervision of nursing documentation and creation of effective nursing audit in practice settings improved nursing documentation.

An educational program was used as an innovative approach to improve nursing documentation in a metropolitan hospital (Jefferies et al., 2012). Jefferies et al. (2012) argued that the program would encourage the development of a sense of critical scrutiny of documentation by nurses. According to Blair and Smith (2012), nurses require continuing education to improve and maintain standards. In a pre- and post- intervention chart audit review of electronic medical records, education was recommended as an option to improve nursing documentation (Hoff & Bhimani, 2011). Education and organizational support for documentation of nursing process were some strategies that were believed to improve documentation (Wang et al., 2011). Nurses benefit from training in the use of structured documentation (Paans et al., 2010).

According to Gershater, Pilhammar, and Roijer (2010), documentation in home nursing was insufficient, resulting in medical, professional, and economic consequences.

Gershater et al. suggested the use of educational programs to improve documentation. Saranto & Kinnunen, (2009) assessed the outcomes of educational interventions by examining signs of change in nurses' behavior such as documentation practices. Documentation audits have shown some deficits, highlighting the need for support and education in documentation practices (Sarantos & Kinnunen, 2009). Educational interventions can be used to improve nursing documentation, resulting in improved patient care (Hughes, 2008). Hughes (2009) stated that a pre- and post- intervention study that involved an educational intervention to nurses resulted in a change with nurses being more patient-centered in their documentation.

Kaakinen and Torppa (2009) reported that a new documentation model was created from the implementation of nursing staff education on documenting content consistent with nursing process model in a university hospital. A prospective, comparative, and quasi-experimental study that included educational training showed that the implementation program had a successful impact on nursing documentation (Darmer et al., 2004). Borchers (1999) used an education strategy as one of the interventions to successfully implement a revised documentation system for private-duty, home health care nursing.

Bjorvell et al. (2002, 2003) carried out a study in which RNs in three hospitals received an educational intervention on nursing documentation in accordance with the VIPS model. Bjorvell et al. (2002, 2003) stated that the design was used to structure nursing documentation systematically. Bjorvell et al. (2002, 2003) stated that the model was a combination of nursing process keywords and keywords for history, status, and

interventions. According to Rykkje (2008), use of training programs based on the VIPS model improved the understanding of content, quality, and accessibility of care. Darmer et al. (2004) found significant improvement in nursing documentation and its structure when VIPS model was used. Darmer argued that the VIPS model would help to increase nurses' understanding of the nursing process model. The model has been tested and is accepted as a recognized standard for documentation (Bjorvell et al., 2002).

Several researchers have used the nursing process model as a basis for documentation, as it guides the nurse to document systematically and purposefully (Karkkainen & Erikson, 2004). A descriptive study to determine the extent of the use of the nursing process for documentation of nursing care in three hospitals showed that documentation based on nursing process facilitated effective care and enhanced clinical-decision making (Ofi & Sowunmi, 2012).

Conceptual Models and Theoretical Frameworks

VIPS and nursing process models were the theoretical frameworks chosen for this DNP project. The primary framework for this project was the VIPS model. The VIPS model was constructed and tested (Darmer et al., 2004). This model was first published in 1992 (Darmer et al., 2004). The model is used to improve the quality and structure of nursing documentation. The VIPS model was designed to provide a structure for nursing documentation, and it consists of two levels of key words. The flow chart of the model starts with data collection of nursing history and nursing status, then nursing diagnosis are derived from these data, nursing goals and interventions are selected and evaluated, then nursing outcomes are described, and the model ends in discharge note (Rykke,

2008). This is in accordance with the nursing process that is commonly known among nurses in United States.

A second framework for the project was the nursing process model, which is a problem-solving framework used in several health care and educational settings. In this project, I ascertained how nurses effectively document nursing care using the nursing process model in combination with VIPS model.

VIPS Model

VIPS is acronym for the Swedish words for well-being, integrity, prevention and security. It has been used to improve nursing documentation (Bjorvell et al., 2002; Tornvall et al., 2004). The model consists of systematically organized keywords from the nursing process (Bjorvell et al., 2002; Tornvall et. al., 2004). The first level of keywords corresponds to the steps in the nursing process while the second level keywords are for nursing history, nursing status, and nursing intervention (Bjorvell et al., 2002; Tornvall et al., 2004). The VIPS model is the most commonly used model for nursing documentation in health care settings including community settings (Bjorvell et al., 2002). This model can be used in both electronic patient records and paper-based records. The VIPS model increases nurses' understanding of the nursing process (Darmer et al., 2004).

Nursing Process Model

The nursing process model is an internationally accepted concept for nursing practice and documentation (Wang et al., 2014). This model has been widely used as a theoretical basis to guide documentation (Wang, Hailey, & Yu, 2011). Wang, Hailey, & Yu stated that nursing process model is a problem-solving approach to nursing practice

and education. Most home health nurses document chronologically rather than logically according to the nursing process model (Gjevjon & Helleso, 2010). Documentation according to the nursing process model is considered to be of good quality due to its logical structure (Daskein, Moyle & Creedy, 2010; Gjevjon & Helleso, 2010; Ofi & Sowunmi, 2012). Accurate nursing documentation enables nurses to systematically review the nursing process and to evaluate the quality of care provided (Paans et al., 2010). Nursing process model is based on scientific methodology and has five phases: assessment, diagnosis, planning, implementation, and evaluation. Nursing process model training was provided. This impacted the quality of documentation in terms of completeness and comprehensiveness in all areas of clinical practice (Krogh, Naden, & Aasland, 2012). The nursing process model is based on hermeneutic/ phenomenological model that emphasizes care and understanding (Rykke, 2008).

The use of VIPS and nursing process models provided guidance and structure for the improvement of quality of nursing documentation. The adoption of these theoretical frameworks enhanced the cost-effectiveness of the project. By using these theoretical frameworks, I noted that a significant improvement in quality of nursing documentation resulted from provision of educational program to the nurses. The quality of content of nursing documentation in nurses' notes was increased. Thus, the research question was answered.

Summary

Evidence-based practice involves the translation, and integration of available best-practice evidence into practice to improve health care delivery and patient outcomes. It

also involves the use of theoretical frameworks and behavior change theories to implement change. The DNP graduate's curriculum emphasizes practice that is innovative and evidence-based, reflecting the application of credible research findings (AACN, 2006). As part of the fulfillment of this practice-oriented requirement, a final DNP project such as this study was completed. This also helped to meet the requirement for expansion of scientific knowledge required for safe nursing practice.

In this section, I discussed the models and theories used to support the development and conduct of the project. The nursing process model was used to discuss relevant information that should be documented. The model also supported the need for comprehensive documentation of all aspects of care provided and evaluation of the responses to care provided. In the next section, I will discuss the project design and methods. Also, I will discuss the strategies used for gathering and analyzing data to evaluate the project outcomes.

Section 3: Methodology

The purpose of this project was to improve the quality of nursing documentation by developing, implementing, and evaluating an educational intervention designed to enhance the documentation skills of home health nurses. In this quantitative project, I measured the change in content of patient care documented in nurses' notes in a home health agency 2 weeks before and 2 weeks after the implementation of an educational intervention. Nursing documentation handouts were distributed to nurses who attended the training to further help them apply the knowledge presented. I informed both staff and administrative nurses about the training through agency e-mail and during staff meetings. Attendance was on a voluntary basis. No incentive was offered or given for training attendance.

Project Design and Methods

In a one group pretest-posttest, descriptive, quantitative study, I compared audit scores for nurses' notes before and after the nursing documentation training- to identify changes in nurse documentation. This was a retrospective audit. Construct validity was demonstrated by using the NMCAT as the pretest/posttest audit instrument. The NMCAT instrument is a validated and reliable instrument for examining nursing documentation. I chose this audit tool because it is a short and time- efficient tool that focuses on evidence-based criteria. It can be used at a unit level and across several health care settings to demonstrate compliance with quality standards. Also, it is reliable as it has a high inter-rater reliability score.

I conducted an audit for both the pre-and posttest using the same instrument. The criteria for nursing documentation were derived from minimum standards on nursing documentation based on patients' condition, their care, their responses to care, plan of care, and process and outcomes measure outlined by Medicare for home health care providers (CMS.gov, 2015). The nurses' notes were audited after approval from the Walden University Institutional Review Board (IRB) was obtained. Approval from the organization where the project occurred was also required and was obtained prior to data collection.

Population and Sampling

The project population was nurses' notes. The notes were patient records. They showed the nursing care provided to patients in their homes. A total of 160 records from the agency's electronic health record were used as the data source. This was at least 40% of nurses' notes for a month. A convenience sample of anonymous nurses' notes before ($n = 80$) and after ($n = 80$) the educational program was audited for content of documentation using NMCAT tool (Appendix A). Inclusion criteria were nurses' notes documented as result of patient home visits. Exclusion criteria included new patient admission notes, patient notes from other disciplines, discharge notes, and communication notes to physicians. The nurses' notes were printed out from the medical records electronic database, de-identified, and given to me by the nurse manager. Names of patients, nurses, or any other identifiers were removed from the notes. The nurses' notes were 100% anonymous. The nurses' notes were placed in a designated locked cabinet in my home throughout the data collection and after the

completion of the project. The unidentified data collected will be kept for 5 years on a password-protected memory stick as required by the Walden University IRB policy. I reviewed the nurses' notes alone.

Data Collection

An audit tool was used for data collection. Data were collected using an already existing instrument from literature. Nurses' notes were audited retrospectively. Data collection was implemented between the dates of June 22, 2016 and July 27, 2016. Eighty de-identified nurses' notes ($n = 80$) were audited on June 25, 2016 for pretest (baseline data). The education program was implemented on July 06, 2016. Another eighty de-identified nurses' notes ($n = 80$) were audited to collect posttest data on July 27, 2016, 2 weeks after educational intervention. This allowed enough time to have adequate number of nurses' notes to be available in the electronic patient record database. The nurses' notes were examined retrospectively for predefined record keeping criteria in terms of content using seven minimum standards of documentation as stated in the audit tool (Johnson et al., 2010; Appendices A and B).

The educational content was delivered at the monthly staff meeting/in-service. The PowerPoint presentation was based on findings from literature review of related topic. A lesson plan (Appendix F) was developed for this training as a guide for organizing my materials and myself for the purpose of helping the learners to achieve intended learning outcomes. A 1-day training session on nursing documentation based on the VIP model and nursing process was implemented for nurses in the home health agency. The focus was on the content of daily nurse visit notes, stressing the

identification of individual needs, problems, risks, response to interventions, referrals, and consultations (Ehrenberg & Ehnfors, 1999). The content of the lecture and method of the presentation, based on adult education theory, was determined by group discussion with the project team (Suzuki et al., 2012). This was based on their educational needs with regard to nursing documentation. Adult learning theory involves the creation of relaxed, psychologically safe environment with a climate of trust and respect, where adult learners are empowered to learn useful information that can be readily adapted (Billings & Halstead, 2012). Adults need to know why they are learning something before they start learning (Fernandez & Delaney, 2004). Adult learners prefer to be self-directed and ready to learn when they can cope effectively with real life situations (Fernandez & Delaney, 2004).

The 1-day training included the following: (a) group discussions, (b) individual supervision on documentation of clinical practice, (c) input and support from RN supervisor, (d) support and instruction to field nurses regarding use of documentation guidelines necessary to facilitate nursing documentation and help, (e) a 25-minute clip of video on nursing documentation by Texas Board of Nursing (TBON, 2014), and (f) distribution to nurses of handout of the PowerPoint presentation and documentation guideline. I gave examples of actual errors identified during baseline chart audit. Content of the slide presentation was reviewed by the project team including the nursing administrator. Revisions made were completed as suggested before the training was implemented. The educational session was open to all staff nurses. Copies of the PowerPoint presentation slides and other teaching material were given to the RN

supervisor to give to any nurse who did not attend the training but was interested in receiving a copy of the teaching materials.

The audit instrument used for this project was the NMCAT. Its criteria were designed to relate to the standards for quality nursing documentation (Jefferies et al. 2010). This instrument has several key aspects including a time sampling approach, examination of the content of nursing documentation and legal requirements of documentation (Johnson et al., 2010). For the purpose of this project and to answer my research question, I used only the aspect on the content of nursing documentation (Appendix B). The pretest and posttest data were collected from nurses' notes using the NMCAT instrument (Johnson et al., 2010; Appendix B). This was used to measure the content of nursing documentation based on seven principles of quality nursing documentation based on 15 defined criteria (Johnson et al., 2010).

The NMCAT audit tool consists of a definitive list of elements and predefined categories of minimum standards of nursing documentation that nurses are expected to include in a daily nurse note. Each category was checked and rated in terms of content by auditing patient charts. Corben (1997) set a 60% or lower level of achievement as an unsafe result for the criteria relating to the content of nursing documentation (Johnson et al., 2010, p. 837). Author permission was obtained to use the audit instrument and license was obtained from the publishing company.

The audit tool was developed in the Sydney, Australia using a sample of 200 health care records. Six-seven minutes were used to complete each audit of a nurses' note. This short audit tool focused on the content of nursing documentation. The NMCAT did not

use a Likert-scale approach. The response categories ranged from absent, present, always present and not rated (Johnson et al., 2010). The audit tool has three different sections: a time sampling approach, examination of the content of nursing documentation, examination of legal requirements of documentation, and capture of the text or actual language used by nurses to demonstrate their areas of strength and weakness in documentation (Johnson et al., 2010).

However, to answer my research question, Section B related to nursing documentation content was the only aspect of the audit tool being used for the project. The NMCAT tool was originally formatted for an acute setting that had shift schedules for a 24-hour work day. The word shift mentioned in one of the minimum standards from the NMCAT tool is interpreted as visit, in order for the criteria to be relevant to the home health setting. The explanation for each of the response categories for each criterion is presented in Appendix C. Permission was obtained from one of the creators of the instrument as required by the IRB. Permission to use this audit tool was obtained from two of the authors via e-mail, and a license was obtained from the publishers of this article.

Validity and Reliability

Internal validity is associated with the planner's confidence in being able to say that the program caused the intended outcomes (Hodges & Videto, 2011). The NMCAT is derived from a review of existing literature and therefore has defined content validity and face validity (Johnson et al., 2010). Johnson et al., (2010) completed the interrater reliability testing for the NMCAT instrument. The overall agreement for most criteria

achieved at least an 85% agreement between the raters (Johnson et al., 2010). The NMCAT has demonstrated reliability and validity (Jefferies et al., 2012; Johnson et al., 2010). This instrument demonstrated face validity and is a useful, reliable, and valid tool that is used to monitor aspects of nursing documentation (Johnson et al., 2010).

The validity of this project was enhanced by using the same audit tool and procedures for data collection at baseline (pretest) and for posttest. I collected both pre- and posttest data was collected for purposes of consistency and reliability.

Data Analysis

The primary instrument used for data collection in the project was the NMCAT. As noted in Appendix A, the questions on the audit tool for content of nursing documentation are related to minimum standards of nursing documentation for care provided. The response categories, as seen in Table 2, were used to evaluate the change in content documented before and after the training.

Data from pre- and posttest documentation audit were analyzed using Statistical Package for the Social Sciences (SPSS) v. 23. Descriptive statistics (e.g. percentages, means, and standard deviations) were used to descriptively analyze the responses from the pre- and posttest scores. The independent variable (i.e., intervention) was the educational retraining program and the dependent variable (i.e., outcome) was the quality of nursing documentation. To determine the impact of the intervention, a comparison was made on continuous (ratio level) data collected through chart audit at baseline and 2 weeks after implementation of intervention. The dependent variable was measured on a continuous scale and the independent variable consisted of two categorical related groups

or matched pairs. A paired sample t-test procedure was used to determine the degree of improvement in quality of documentation. An alpha level of 0.05 was used for this analysis.

For the project to remain 100% anonymous, no identifiable data were collected, and charts were not matched to nurses. For the purpose of data analysis, only data for the *Always present* category of responses (see Tables 3 & 4) were used to evaluate change in nurse documentation content before and after education. The significance level was defined at $\alpha = .05$. Probabilities equal to and below 0.05 were regarded as significant.

Protection of Human Subjects

The use of de-identified nurses' notes made patients and nurses completely anonymous. It also eliminated bias. I had no information that matched patients or nurses to the data collected. I signed an agreement with the organization to use the nurses' notes as secondary data source. The organization's administrator signed the data use agreements. No informed consent was required.

Walden University IRB approval was obtained prior to delivery of the training and the collection of pretest, posttest, and evaluation data. The Walden University IRB approval number for this project was 06-21-16-0252417.

Project Evaluation Plan

To evaluate the program's effectiveness in improving the quality of nursing documentation for care provided to chronically ill patients in their homes, a pretest and posttest audit was done using the NMCAT. The data were compared using a t-test

statistic. The pretest and posttest audit provided information on the change in nursing documentation of nursing care provided. Verbal feedback regarding the effectiveness of the training was received from some of the nurses who attended the training. The nurse manager will perform periodic audits of nursing notes and will provide yearly nursing documentation training for the future.

Summary

In Section 3, I discussed the project design, population, sample, data collection methods, education, and analysis. This project provided the nursing documentation training necessary to support improvement of the quality of nursing documentation by nurses in a home health clinical setting. Organizations must invest in educational interventions for clinical staff to improve approaches related to effective nursing documentation of care rendered. This project provided an opportunity to gather information through audit of nurses' notes and organize it in a manner that is presentable and acceptable.

Nursing documentation is recognized globally as the core of nursing activities and one of the duties underscoring professional autonomy of a nurse. Improved documentation reflects improved practice. Good quality documentation improves quality of patient care. Nurses are expected to ensure that their documentation practices meet high standards and should be a reflection of the care provided. Poor standards of documentation have been linked to adverse patient outcomes. Use of scientific models improves the structure of documentation. Nursing documentation has continuously developed with increasing research based on the nursing process and VIPS model, but

still has deficiencies, especially in home health care. Further research and establishment of a universal standard will lead to improvements, with associated benefits for practice and patient outcomes.

I confirmed the importance of continuing education, supervision and audit of nursing documentation. Nursing audit is a component of risk management process and quality assurance as auditing patient records reduces errors and poor standards. There is a further need for periodic staff nurses' professional development to update knowledge practice.

Opportunities to engage nurses in learning activities may result in an increased level competency and skill in documentation of relevant information in patient progress notes leading to improved outcomes for patients. It is important that nurses provide safe and quality care, ensuring that all pertinent information is documented in a patient's note. Nursing students and professionals must receive appropriate training to develop their abilities to document effectively to ensure individuality and continuity of care (Jefferies et al., 2012; Voutilainen, et al., 2004). Quality nursing documentation requires that care should be patient-centered and not a list of tasks performed by the nurse during his or her visit (Jefferies et al., 2012).

Section 4: Findings, Discussion, and Implications

Introduction

The purpose of the project was to determine whether training would improve the quality of nurses' documentation of patient information in clinical practice. Nurses' notes from an organization that provided home nursing care to chronically ill patients were audited at baseline (pretest); then, an educational training including handouts on nursing documentation guidelines was implemented for staff nurses. Two weeks after the training, nurses' notes were audited again to collect posttest data. I compared the pretest and posttest audit scores for different categories to determine whether nurses demonstrated an improved documentation of relevant information in their notes after the training. The training was a 1-day training during in-service monthly staff meeting. Invitation to attend the meeting was done through agency e-mail and announcement during previous monthly in-service staff meetings. I conducted the training. The educational intervention was implemented on the day set for the usual monthly in-service staff meeting to eliminate time constraint barrier. Nineteen (82.6%) nurses completed the training.

Attendance to the training was voluntary, with no record of the names of nurses who were present. No identifying information was collected. The data source was de-identified nurses' notes ($n = 80$) pretest and ($n = 80$) posttest from electronic patient records database for the organization. The data were analyzed using the SPSS which provided result summaries.

Results

Project Question

What is the effect of a documentation retraining program for home health nurses on the quality of documentation of patient care in daily visit notes?

Descriptive Data: Nursing Record Audit Findings.

Tables 1 and 2 shows the audit scores for the pre-and posttest respectively. The 15 criteria associated with the seven principles of minimum standards of nursing documentation were examined using the NMCAT as seen in Tables 1 and 2. Figure 1 shows side by side comparison of the audit scores for the both the pre-test and the posttest reported in numerical form and percentages.

A total of the 160 records reviewed for the following: patient's problem written in terms of what the patient actually said or what was observed by the nurse, legibility and all entries dated and time were noted in all the records. However, recording whether patient's status changed or unchanged at every shift was not found in most records (42%). Similarly, the use of objective information when reporting changes was apparent. Patient responses to medication and treatment in most records were below safe level (37% always present and 61% absent and 57% always present and 43% absent respectively) as shown in Table 1. Nine patient records were not rated for response to medication because no pain medication was taken and 22 patient records were marked as not rated because no treatment was done. Nurses refer to treatment as those that include wound care, injection administration, Foley catheter change, or blood sugar check. All of the records were recorded chronologically, although the recording of incidents as they

occurred was not widespread in the records (52% always present and 29 % sometimes present). The agency uses electronic documentation that was predesigned to allow for documentation in chronological order. Entries in patient records were not entered uniquely (65% always present and 19% sometimes present). All of the records audited did not have patient's name being used in the progress notes (100% absent). The low scoring on use of patient's name in notes supported findings of Johnson et al., (2010) and Broderick and Coffey (2013) that nurses are not using patient names while charting, thereby resulting in less meaningful relationships between nurses and patients. The lack of use of patient's name in nurses' notes reviewed for pretest data may be due to this being a new criterion for best practice for nurses participating in the project. This criterion was necessary to personalize records for patient and nurse (Johnson et al., 2010). It also allows the subject of documentation to be patient-centered rather than having a list of nursing tasks that disconnects from the patient (Johnson et al., 2010).

There was an increase from 43% to 80% for entry recording the status of the patient, whether changed or unchanged as shown in Table 2. The action taken by a nurse when finding a change in patient's status is recorded rose from 69% to 89%. Also, documenting patient's response to medication and treatment increased. Documentation of response to medication and treatment increased to 84% and 85% respectively, indicating a safe level according to Corben's rule (Johnson et al., 2010). These were significant increases from pretest audit scores. Entries in documentation appear uniquely increased to 71% from a pretest score of 65%. The documentation of education and/ or psychosocial care provided to patients increased to 97% in the

posttest. A significant improvement was noted in referring to patients by name in the nursing entries in the patient records. No patient name was used in the documentation of care provided by nurses for all the records audited in the pretest. However, in the posttest audit, there was a 66% improvement as shown in Table 2. The nursing documentation training was effective in educating nurses in the use of patient names during documentation of care provided.

The project was based on the comparison of the always present percentage score for each of the 15 criteria in the pretest and the posttest (Figure 1). Patient's problem written as stated was almost 100% for both the pre-and posttest. Status changed or unchanged had a higher score of 80% after the educational intervention. Response to treatment was stated improved to 85% as compared to 64% at baseline. Response to medication stated improved to 84%. There were no changes in documenting in chronological order, legibility of notes and inclusion of date and time as these were in-built formats in the electronic documentation process. A significant improvement was noted in the use of patient names after the educational intervention. There was 66% improvement as compared to lack of use of patient names in the nursing notes prior to the implementation of the educational program. These quantitative findings answered the research question.

However, in order to determine the statistical significance of the findings, a paired -sample t-test was done as shown in Tables 3 and 4 below.

Table 1.

NMCAT audit baseline (pretest) scores (n=80)

Criterion relating to content of nursing documentation	No.	Absent no. (%)	Sometimes present no. (%)	Always present no. (%)	Not rated no. (%)
The patient's problem was written in terms of what the patient actually said or what was observed by the nurse	80	1 (1.25)	0	79 (98.75)	0
There was an entry recording the status of the patient, whether changed or unchanged, on each shift	80	39 (48.75)	7 (8.75)	34* (42.5)	0
Any change in the patient(s) status was indicated and objective information documented	65	13 (20.0)	0	52 (80.0)	15
The observation, a sign or a symptom, was written in terms of what the nurse observed and was not based on the nurse's assumptions about the patient	80	1 (1.25)	0	79 (98.75)	0
The action taken by a nurse when finding a change in patient's status was recorded	62	19 (30.65)	0	43 (69.35)	18
The patient(s) response to treatment was stated	58	25 (43.10)	0	33* (56.90)	22
The patient(s) response to medication was stated	71	43 (60.56)	2 (2.82)	26* (36.62)	9
The nursing documentation was a chronological report of events that described the patient(s) experience from admission to discharge	80	0	0	80 (100.0)	0
All entries in the nursing documentation were legible	80	0	0	80 (100.0)	0
There was a recorded time and date on every entry in the nursing documentation	80	0	0	80 (100.0)	0
Entries were written as incidents occurred	80	15 (18.75)	23 (28.75)	42* (52.50)	0
Entries were written in a logical and sequential manner	80	2 (2.50)	18 (22.5)	60 (75.0)	0
Entries in documentation appear uniquely	80	13 (16.25)	15 (18.75)	52 (65.0)	0
The education and/or psychosocial care provided by nurses is recorded in the notes	80	12 (15.0)	0	68 (85.0)	0
The nurse refers to the patient by name in the nursing progress notes	80	80 (100.0)	0	0* (0.0)	0

Note. From “The Nursing and Midwifery Content Audit Tool (NMCAT): a short nursing audit tool,” by Johnson, Jefferies & Langdon., 2010, *Journal of Nursing Management*, 18, p. 837. Reprinted with permission. *Data were reported in number and percentages (no. %)*

Table 2.

NMCAT audit posttest scores (n=80).

Criterion relating to content of nursing documentation	No.	Absent no. (%)	Sometimes present no. (%)	Always present no. (%)	Not rated no. (%)
The patient's problem was written in terms of what the patient actually said or what was observed by the nurse	80	0	0	80 (100.0)	0
There was an entry recording the status of the patient, whether changed or unchanged, on each shift	80	10 (12.5)	6 (7.5)	64* (80.0)	0
Any change in the patient(s) status was indicated and objective information documented	69	7 (10.14)	0	62 (89.86)	11
The observation, a sign or a symptom, was written in terms of what the nurse observed and was not based on the nurse's assumptions about the patient	80	0	0	80 (100.0)	0
The action taken by a nurse when finding a change in patient's status was recorded	66	8 (12.12)	0	58 (87.88)	14
The patient(s) response to treatment was stated	60	9 (15.0)	0	51 (85.0)	20
The patient(s) response to medication was stated	75	12 (16.0)	0	63 (84.0)	5
The nursing documentation was a chronological report of events that described the patient(s) experience from admission to discharge	80	0	0	80 (100.0)	0
All entries in the nursing documentation were legible	80	0	0	80 (100.0)	0
There was a recorded time and date on every entry in the nursing documentation	80	0	0	80 (100.0)	0
Entries were written as incidents occurred	80	13 (16.25)	16 (20.0)	51 (63.75)	0
Entries were written in a logical and sequential manner	80	0	14 (17.5)	66 (82.5)	0
Entries in documentation appear uniquely	80	8 (10.0)	15 (18.75)	57 (71.25)	0
The education and/or psychosocial care provided by nurses is recorded in the notes	80	2 (2.5)	0	78 (97.5)	0
The nurse refers to the patient by name in the nursing progress notes	80	27 (33.75)	0	53 (66.25)	0

Note. From "The Nursing and Midwifery Content Audit Tool (NMCAT): a short nursing audit tool," by Johnson, Jefferies & Langdon., 2010, *Journal of Nursing Management*, 18, p. 837. Reprinted with permission. *Data were reported in number and percentages (no. %)*

Criterion relating to content of nursing documentation	Before (Pretest) n %					After (Posttest) n %				
	Absent	Sometimes present	Always present	Not rated	N	Absent	Sometimes present	Always present	Not rated	N
The patient's problem was written in terms of what the patient actually said	1(1.25)	0	79(98.75)	0	80	0	0	80(100)	0	80
There was an entry recording the status of the patient, whether changed or unchanged, on each shift	35(43.75)	7(8.75)	34*(42.5)	0	80	10(12.5)	6(7.5)	64(80.0)	0	80
Any change in the patient(s) status was indicated and objective information documented	13(20.0)	0	52(80.0)	15	65	7(10.14)	0	62(89.86)	11	69
The observation, a sign or a symptom, was written based on the nurse's assumptions about the patient	1(1.25)	0	79(98.75)	0	80	0	0	80(100)	0	80
The action taken by a nurse when finding a change in patient's status Was recorded	19(30.65)	0	43(69.35)	18	62	8(12.12)	0	58(87.88)	14	66
The patient(s) response to treatment was stated	25(43.10)	0	33*(56.90)	22	58	9(15.0)	0	51(85.0)	20	60
The patient(s) response to medication was stated	43(60.5)	2(2.82)	26*(36.62)	9	71	12(16.0)	0	63(84.0)	5	75
The nursing documentation was a chronological report of events that described the patient(s) experience from admission to discharge	0	0	80(100)	0	80	0	0	80(100)	0	80
All entries in the nursing documentation were legible	0	0	80(100)	0	80	0	0	80(100)	0	80
There was a recorded time and date on every entry in the nursing documentation	0	0	80(100)	0	80	0	0	80(100)	0	80
Entries were written as incidents occurred	15 (18.75)	23(28.75)	42*(52.5)	0	80	13(16.25)	16(20.0)	51(63.75)	0	80
Entries were written in a logical and sequential manner	2(2.50)	14(21.5)	60(75.0)	0	80	0	14(17.5)	66(82.5)	0	80
Entries in documentation appear uniquely	13(16.25)	15(18.75)	52(65.0)	0	80	8 (10.0)	15 (18.75)	57(71.25)	0	80
The education and/or psychosocial care provided by nurses is recorded in the notes	12(15.0)	0	68(85.0)	0	80	2 (2.5)	0	78(97.5)	0	80
The nurse refers to the patient by name in the nursing progress notes	80(100.0)	0	0*(0.00)	0	80	27(33.75)	0	53(66.25)	0	80

Figure 1. Comparison of audit of patient records before (Pretest) and after (Posttest)

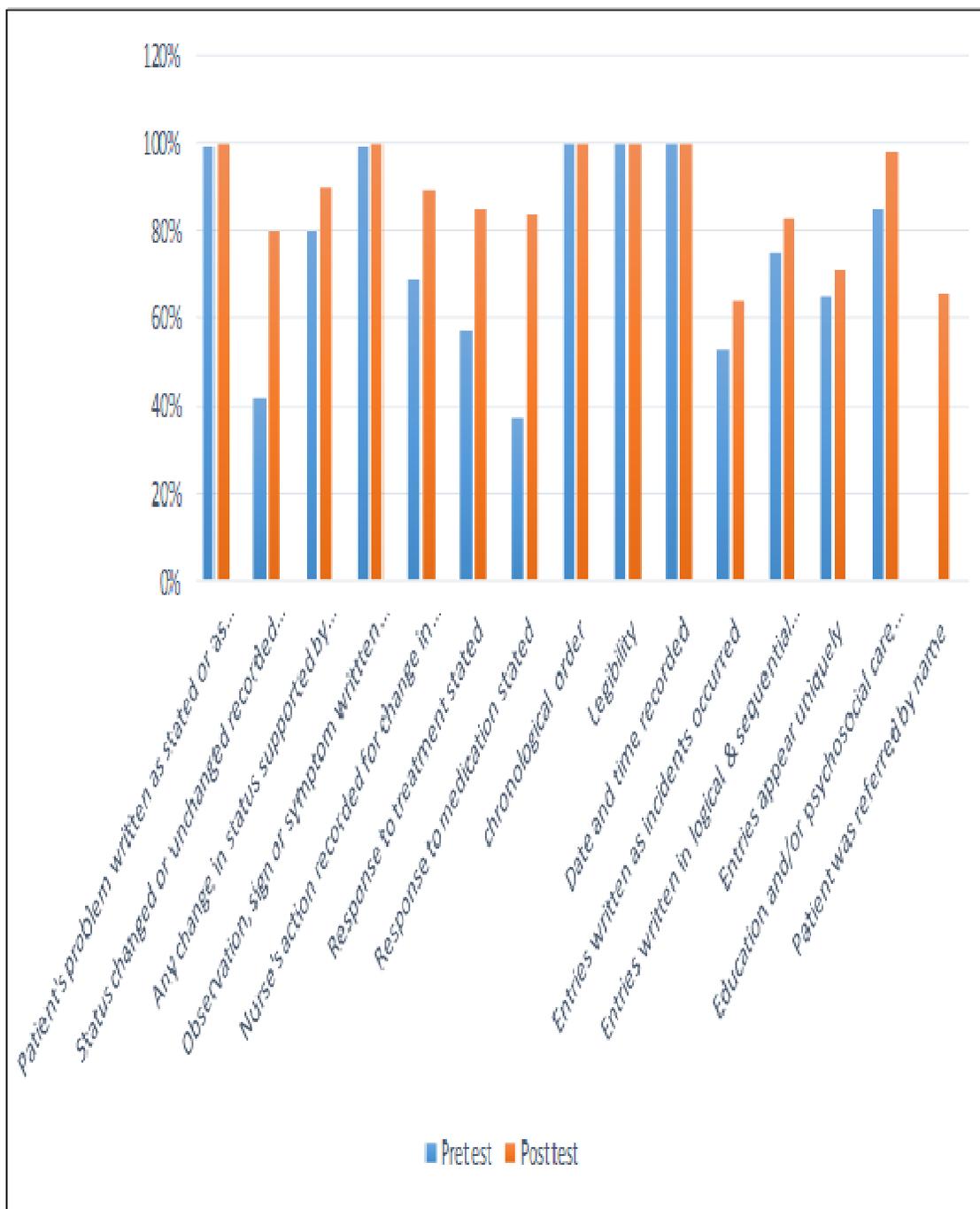


Figure 2. Comparison of audit finding for always present categories by item

Inferential Statistic

Project Hypothesis: *There will be a difference in the quality of nursing documentation after retraining.*

Ho: *There is not a significant difference between the two means*

$$M1 = M2$$

H1: *There is a significant difference between the two means*

$$M1 \neq M2$$

A two-tailed sample t-test revealed that the quality of nursing documentation was significantly improved after training on NMCAT audit tool criteria of nursing documentation. Table 3 below shows the mean and standard deviation of both the pre-and post-test scores on the NMCAT. Nursing documentation improved (M = 87.1993, SD = 12.71963) compared to the quality of nursing documentation prior to training (M = 70.6913, SD = 29.24003).

Table 3

SPSS Output

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Scores on the NMCAT Audit Tool on the Group of 15				
	Criteria of Quality Nursing Documentation Prior to Training of Nurses	70.6913	15	29.24003	7.54974
	Scores on the NMCAT Audit Tool on the same Group of 15				
	Criteria of Quality Nursing Documentation after Training of Nurses	87.1993	15	12.71963	3.28419

Table 4
Paired Sample-t test

		Paired Differences					Effect size		
		95% Confidence Interval of the Difference					Sig. (2-tailed)		
		Mean	Std. Deviation	Std. Error	Lower	Upper	t	df	
Pair 1	Scores on the NMCAT instrument on the group of 15 criteria of quality of nursing documentation pre- and post-training on quality nursing documentation	-16.50800	19.93544	5.14731	-27.54788	-5.46812	-3.207	14	.006
									.732147

From Table 4 above, the mean difference between pre-and posttest (i.e. the two variables) = -16.50800

$t(14) = -3.207, p = .006 < .05$

So, we reject the H_0 hypothesis. There is enough evidence to show that there is a significant difference between the mean scores on the quality of nursing documentation before and after training implementation. We are 95% confident that the mean difference between the pre-and post-test scores on the quality of nursing documentation falls between -27.54788 and -5.46812.

Discussion of Findings in Context of Literature

The project showed that with a relevant intervention, documentation of nursing care can increase in quality. This is evidenced by higher scores above sixty percent for always present (Corben's rule for achievement of safe result) in posttest when compared to baseline audit (Johnson et al., 2010). This met the project goal. Most of the criteria achieved a score of 80% or more for the posttest. The project revealed that the use of VIPS model in accordance with the nursing process model facilitated documentation of nursing care rendered. This result was strengthened by the training that the agency nurses received on nursing documentation. Recording of patient's status whether changed or unchanged at every visit was evident in most records (80% always present) after the educational intervention. This aligned with the finding by Johnson et al., (2010). Also, the review of 80 nursing records revealed that over 50% of records reflected patients' status on a continuing basis (Voutilainen et al., 2004). Similarly, the use of objective information in reporting changes was seen in most of the nurses' notes reviewed after the educational intervention (Johnson et al., 2010). The recording of patient responses to medication, and treatment was not extensive (84% and 85% always present respectively), similar to findings reported by Johnson et al., (2010). Voutilainen et al., (2004) reported that in an audit of 55 nurses' notes in a geriatric ward, 18% lacked planned intervention by nurses, and 45% of the notes lacked information on concerning patient outcome prior to educational intervention. Criterion 11 (entries were written as incident occurred) showed an increase from 52.5% to 63.75%. Criterion 15 relating to using patient's name within the notes was poorly achieved for pre-and posttests, similar to findings from

Jefferies et al, (2012). Language such as pt. or patient was regularly used in the nurses' notes reviewed, and the information was frequently documented in a passive voice. However, the use of patient names was evident but not extensive after the educational intervention (66.25% always present).

Person-centered care is a core value in nursing. Quality nursing documentation requires a patient to be the core of the documentation (Jefferies, Johnson & Griffiths, 2010). According to Johnson et al., (2010) and Broderick and Coffey (2013), pt. or patient was used by nurses to distance themselves from the patient. This is not patient-centered care. Use of a person's name instead of pt. indicates personalized care, and increases the connectedness (Broderick & Coffey, 2013; Johnson et al., 2010). In general, the intervention resulted in increases in the presence of all the criteria. There were increases in scores for criteria that were low in the pretest. Dating, signing of notes by nurses and legibility of records remained high, similar to studies conducted by Bjorvell et al., (2002) and Johnson et al., (2010).

Through this project, nurses understood the benefits of documenting relevant information to enhance patient outcomes. Effective documentation improved communication among health care professionals who had access to patient information (Jefferies et al., 2012). It was also an indication that details about patient's care was included (Jefferies et al., 2012). Poor documentation, a reflection of inadequate care, can undermine a nurse's credibility (Broderick & Coffey, 2013).

The nursing profession requires nurses to be accountable for care provided. Nurses are required to maintain competencies and current knowledge. However,

nurses face some barriers to obtaining the necessary professional training, and competencies needed for practice. The leadership of organizations must understand the competencies that their nurses need, and provide necessary training. Nurse leaders have to be accountable for providing competency evaluations regularly. Nursing documentation is a critical part of nursing practice, and serves as a means of communication and coordination of care to other health care providers. For nurses to meet these needs, training, and competency on nursing documentation, may be required. An important outcome of this project was to show that training could improve nurses' documentation skill in charting comprehensive information on care provided.

Nurses may lack knowledge on information needed in their progress notes. Effective documentation of relevant information will enhance patient care and lead to quality outcomes. The nursing documentation training materials provided the nurses with guidelines on relevant information required in any daily visit note, to meet minimum nursing documentation standards, and meet organizational requirement for quality care delivery. Through this project, I examined the content of care documented by nurses, and identified areas for improvement.

I used the VIPS and nursing process theoretical models to develop the training included for capstone project. The VIPS model supports the systematic documentation of nursing care, and promotes patient-centered care (Ehrenberg et al., 1996). The nursing process model provided a guideline for nurses to assess, and document care provided effectively. It is a conceptual framework in the nurse- patient relationship.

Implications for Policy, Practice, Research and Social Change

Nursing documentation is a communication tool for continuity of care amongst health care professionals. It is a key component of good nursing practice, and should reflect quality care provided to patients including interventions, and patient responses (Blake-Mowatt, Lindo, & Bennett, 2013). A nursing note that lacks relevant information is an unreliable source of information for planning patient care (Jefferies et al., 2012). The use of educational program in a clinical environment to improve the quality of nursing documentation is a supportive approach. The section below will discuss how the project findings will affect nursing in areas related to policy, practice, research and social change.

Implications for Policy

The project provided baseline information that could be used to guide the development of national educational interventions for nurses in the healthcare delivery. Continuous monitoring of nursing documentation for quality assurance purposes should be developed at a national level through national consultative process led by nurse leaders. Nurse leader should collaborate to improve of nursing documentation for home health agencies by advocating for education and training on nursing documentation within the higher degree educational systems. APNs can use already developed minimum standards of nursing documentation to formulate guidelines for nursing documentation in home health care, and other community care settings to improve outcomes for patients with chronic illnesses. Nurse leadership in health care organizations may champion competency programs, certifications, and ongoing training on effective nursing

documentation. Nurse leaders in political arenas can push for establishment of nursing documentation policy at an area wide level. This may be helpful in bridging gaps related to nursing documentation across clinical organizations, and increase the quality of care to meet the needs of patients. This translation of knowledge into policy and practice may enhance coordination of care in the continuum, and reduce health care costs locally and globally. Failure to translate research into practice, and policy is one of the consistent findings from clinical and health services research (Grimshaw, Eccles, Lavis, Hill & Squires, 2012). As result of this lack of translation into practice, and policy gaps, patients do not achieve optimal benefit from advances in healthcare. This exposes them to unnecessary risks of iatrogenic harms and health care systems incur unnecessary expenditure resulting in high costs in health care delivery (Grimshaw et al., 2012).

Implications for Practice

I identified that home health nurses' documentation of patient care was poor. The documentation was incomplete in general, and did not communicate all relevant information regarding patient care to other health providers. According to Evatt et al., (2014), inaccurate information or lack of it thereof, can adversely affect clinical decisions related to patient care. The findings have implications for identifying areas of improvement in documentation by home health nurses. Continued education is necessary to ensure that nurses are familiar with the organization's documentation guidelines, maintain accountability, adhere to professional practice, and fulfill regulatory guidelines. The project improved patients' outcomes and quality of nursing care provided. The use of audit tool for nursing documentation empowered nurse leaders to monitor the quality of

nursing documentation to demonstrate compliance with quality standards and for risk management programs. Nurses had increased competency to provide patients with quality holistic care that includes sharing relevant information with other health care providers involved in a patient's care for the safety, continuity and quality of patient care (Ehrenberg et al., 1996).

Nurses gained competency in structured documentation of patient care using the VIPS and nursing process models of documentation. Clinicians may use the educational intervention to improve nursing documentation in their facilities; however, additional follow-up trainings, competency checks, and supervision for longer periods may be required for the sustenance of the change initiative. Nurse Managers should also conduct periodic nurses' note audits to enable the organization to maintain the change. Other disciplines and organizational efforts may be involved, when implementing innovations within nursing in order for adoption of change.

Implications for Future Research

Nursing documentation has come a long way but still needs improvement due to weaknesses noted. The findings from this project may enhance future research by expanding nursing knowledge related to documentation practice of nurses in community nursing. Further research, using consistent established standards may lead to improvements for benefits to nursing practice, and patient outcomes. In addition, it is suggested that future research focus not just on improving nursing documentation in community nursing, but emphasis should be on sustaining the change. Nurses and researchers nationally and globally should work continuously and systematically to

develop a uniform model for nursing documentation in home health and community health care settings.

Implications for Social Change

The audit of nurses' notes empowered nurses to document relevant information related to quality patient care in patient records. The provision of nursing documentation training assisted in the enhancement of staff nurses' confidence and knowledge in providing quality care to patients. The training also provided understanding on the importance of documentation of relevant information that may result in better outcomes for patients in home health care. Documentation is an essential part of nursing practice. Quality documentation includes documentation of patients' problems, nurses' actions and patient outcomes. Nurses make their work visible and contribute to the recovery of the patient through their nursing notes. Nurses can improve care by documenting relevant information for use by other health care providers (Johnson et al., 2010). Effective nursing documentation will improve patient safety, continuity and quality of care (Broderick & Coffey, 2013; Ehrenberg et al. 1996).

The practice-focused doctoral program has positioned me to implement quality improvement initiative in a clinical setting to solve a practice problem using evidence from the project to improve patient outcomes for persons with chronic illnesses (AACN, 2006). The project contributed to social change in several ways. I influenced a behavior change in the staff nurses by changing their values or beliefs toward provision of quality care and effective documentation of care provided to patients. I

advocated for a change in documentation policy for the agency, in order to improve communication between nurses and other health care providers for better outcomes for the vulnerable population served. The facility used the minimum standards of documentation to develop a documentation policy that was adapted to their own needs. In addition, the change initiative improved patient care, facilitated greater adherence to standards of care, nursing competence in documentation, and coordination of care. The project played a strong role in guiding training strategies using the seven minimum standards of nursing documentation as guiding principles for content of nursing documentation to meet organizational goals. Different health care settings can use the guiding principle of nursing documentation from this project to improve the quality of nursing documentation in their organizations, thereby positively affecting broader communities of patients.

Project Strengths and Limitations

Strengths

Nurses' notes audit provided data used for evaluation. Therefore, the data represents direct information and reflects real-life situation. The NMCAT audit tool is a short, useful, reliable and valid tool that measured the quality of nursing documentation after an educational intervention. It facilitated the collection of continuous data that explored nursing actions and patient outcomes. This instrument demonstrated face validity and inter-rater reliability of 85%. I used the NMCAT for both pre-and posttest. I did the data collection alone. Nurses were not aware of the data collection. This helped to control bias in the data.

In addition, the use of an audit tool that had criteria that was similar to the nursing documentation guidelines used in the agency strengthened the project. The use of the theoretical frameworks helped to answer the research question effectively. Changes in nurses' perception towards or knowledge about documentation were not measured, only organizational change as shown by documentation. Support from nursing leadership, and engaging in a project that was relevant to the nurses' daily clinical practice helped to motivate the agency staff nurses to attend the educational program. This helped in the successful implementation of the project.

The collection of all data in one day for the pretest and one day for the posttest strengthened the project as this showed the status of nursing documentation on those days in the whole organization (Thoroddsen & Ehnfors, 2007).

Limitations of the Project

The project data source was from only one site, and involved only the nursing staff from the agency. Hence, findings may not be generalizable to similar agencies with differing acuity or other electronic health record platforms. This contributes to the project's lack of generalizability. An alternative approach would have been to use data sources from more than one home health agency. Secondly, I did a retrospective audit. Conducting the audit one day after provision of care would be an alternate approach. Documentation is completed at the point of care. In addition, chart audit was completed once following the intervention, it cannot be determined if the improvement found in this project will be sustained for a longer time. Thirdly, future studies should measure changes in documentation over a longer period. Finally, I used a convenience sampling

technique to select nurses' notes from patient records. This might have caused sampling bias (Polit & Beck, 2010). A different approach would have been to choose a random sample of nurses' notes from several home health agencies. This did not seem practical or cost-effective due to time constraint.

Recommendations

According to the results of the audit, nurses' notes showed an improvement in the content of nursing care documented. Therefore, I would recommend for staff nurses, nurse managers and educators to conduct periodic unit audits of patient records to monitor content of nursing care documented in patient records. I would recommend quarterly interactive nursing documentation training for staff nurses will empower to document nursing care effectively and promote delivery of quality care to patients. Nurse educators should use to case studies that provide opportunity for nurses to practice, and document care for learning purposes. Additionally, nursing documentation training on content of care provided, and adherence to plan of care should be part of orientation program for new nurses in the organization.

Ongoing mentoring on nursing documentation should be encouraged by nurse manager.

I suggested that nurses, managers and educators should periodically audit nurses' notes using the NMCAT to monitor content of nursing care provided. I recommended that nurse researchers should conduct a similar quality improvement project in more than one single home health organization, as there only a few studies conducted in home health or community settings.

Support from nurse manager and nurse administrator was crucial in the success of this project.

Analysis of Self

Scholar

The doctoral project allowed me to apply scholarship to practice. The project enabled me to identify a clinical problem, and implement an educational intervention to address the problem. The problem identified was poor quality of nursing documentation. I researched literature related to the identified problem, and assessed stakeholder's perspectives, and needs for a quality improvement initiative to tackle the issue. The project provided an opportunity for staff nurses to enhance their skill in documenting relevant information in patient records. I used scientific framework to develop, design, and evaluate new practice approach to promote safe, effective, efficient, and patient-centered care (AACN, 2006). The project also enabled me to evaluate outcomes, and answer the project question using evidence-based quantitative method that improved clinical nursing practice. I was able to collect data using an audit tool, analyze, and evaluate the change in nursing documentation content using a pre/posttest design. This project may be adopted by other health care settings for education on improvement of quality of nursing documentation. The implementation of the project in a real-life setting, and the interpretation of findings enabled me to use advanced knowledge from evidence-based quality improvement initiative to improve nursing practice, and health outcomes for population served. I received positive feedback from staff nurses and the nurse leadership due to the change that resulted from this project.

As a transformational leader, I used quality improvement (QI) strategies, and scientific theory in creating change at the department and organizational levels, improving health outcomes for target population. I also provided clinical expertise, and enhanced nurses' accountability for quality of healthcare, and patient safety for populations with whom they work (AACN, 2006). I provided leadership, and advanced change in nursing practice by using evidence-based QI initiative in the home health care setting. The use of quantitative design in this project with measurement of outcomes helped me to promote use of proper scientific evaluation for implementation of QI initiatives, and new technologies in the organization.

Practitioner

In this project, I assumed accountability for health care outcomes for a target population served by recognizing the influence of knowledge gaps of clinical practice on patient outcomes. I applied evidence-based information to design, implement and evaluate nurses' notes. I used appropriate teaching, and learning principles, and strategies as well as current information, materials, and technologies to facilitate learning of nurses (Coleman, 2013). I have developed professionally through the process of clinical scholarship, and analytical methods for evidence-based practice (AACN, 2006). I am proficient in the use of information systems or technology resources to implement quality improvement initiatives, and support practice (AACN, 2006). I practiced in an area of specialization, which is a hallmark of DNP program (AACN, 2006).

Project Developer and Manager

I acquired the competency, and skills in leadership role of synthesizing data, information, and knowledge to achieve optimal patient and care environment outcomes. I acted as a change agent, and played a central role in establishing a project team, participated in the work of the team, and assumed leadership of the team when appropriate (AACN, 2006). I delegated and used the nursing team resources, and acted as a partner on the interdisciplinary healthcare team. I identified clinical deficiencies, and potential solutions that improve safety, effectiveness, quality and coordination of care for population served in the home health care setting (Coleman, 2013). I demonstrated advanced levels of clinical judgement, systems thinking and accountability in designing, delivering and evaluating evidence-based project to improve patient outcomes (AACN, 2006). Through this project, I gained confidence to guide, educate, mentor, and support other nurses to achieve excellence in nursing practice in an organization.

Professional Development

This project has enhanced my knowledge, and assisted in professional development as a nurse educator and researcher. The capstone project allowed me to collect, and analyze data to support routine staff nurses' training on nursing documentation. The findings of the capstone project provided the impetus to disseminate project findings, and translate evidence to clinical practice in the home health agency. The home health facility adopted the project findings and plans to implement staff development trainings regularly. The project highlighted the importance of training to educate nurses. The education had significantly improved the

quality of content of care provided and documented in patients' records. The DNP project gave me the opportunity to promote continued professional development through the development of writing skills and publication of this project in a peer-reviewed nursing journal. Publication of this project manuscript will allow other nurse researchers access to information related to similar trainings, and will contribute to advancement of nursing profession. The presentation and publication of the results of the project will be an important step in my professional development.

Summary and Conclusion

Accurate documentation promotes consistent and effective communication between nurses and other team members involved in a patient's care (Voutilainen et al., 2004). This aim of the project was to improve the quality of nursing documentation in home health care by evaluating the effect of a retraining program on nursing documentation. The method used in evaluating the documentation of nursing care requires that nurses document the content of the nursing care processes in a detailed manner. Effective documentation of relevant aspects of care provided to patients will result in better patient outcomes. This will also enhance communication with other nurses and health care providers. There have been few studies related to improvement of documentation of care in home healthcare settings, despite widespread knowledge about inadequate documentation of patient care in this healthcare setting.

The outcome data from the project demonstrated that nursing documentation can be improved through an educational intervention. The data showed the strong

potential that this DNP project has in addressing identified clinical practice problem in a practice setting. It also demonstrated that use of training can address knowledge deficits in clinical practice of home health frontline nursing staff.

In light of the different practice settings, VIPS, and nursing process models structure of documentation may not fit all cases due to its stringent nature on how the documentation should be structured (Gjevjon & Helleso, 2010). Other theoretical frameworks may be used. Use of both a prospective and retrospective perspective should be considered. In home health care, all of the criteria from the minimum standards of nursing documentation may be needed, depending on patient's acuity level (Gjevjon & Helleso, 2010). The documentation should include observations, assessments, interventions, and expected outcomes to support continuity of care. VIPS and nursing process models are suitable for systematic documentation of care provided, and for continuity of care. Therefore, nursing documentation training, and continuing education can be used in home health agencies and other health care settings to improve content of care documented by nurses.

This project has allowed me to use my acquired DNP graduate skills successfully. I have accomplished the scholarly vision of being a change agent, and have affected social change. In addition, this project has given me the confidence to be a successful doctoral graduate that is prepared to positively move nursing profession forward, and contribute to improving the health care delivery system. In summary, there is need for more research in other home health care settings on how documentation can be patient-centered, its effect on communication among health care

providers, and continuity of care. Future projects should involve rigorous trials including multiple agency involvement. Section 5 outlines how I will disseminate my project results to frontline nurses, and the nursing profession.

Section 5: Scholarly Product

The purpose of the project was to improve the quality of nursing documentation among home health nurses using a pre-posttest design. This included the use of an educational intervention to improve the quality of content of nursing care documented by nurses in patient records based on nursing process and VIPs frameworks for structured documentation. The effectiveness of the educational intervention was evaluated through feedback received from attendees.

The project result will be disseminated in two-folds: First, a Power Point presentation was made to the nurse leaders and frontline nurses in the clinical setting. I demonstrated, and used effective communication skills (AACN, 2006). I actively engaged my audience and shared my thoughts and passion on the topic, in addition, to the relevance of the outcome data (Zaccagnini & White, 2011). The oral presentation allowed me to share knowledge acquired with frontline home health nurses and the nursing leadership in the clinical setting. This assisted the nurses and nurse leadership in their efforts to improve their nursing documentation and effective delivery of health care.

Secondly, through my Sigma Theta Tau International Honor Society (STTI) membership, I will attend and participate in conferences. This will afford me the opportunity to present this project topic in one of the conferences in the future. I will develop this manuscript for publication and peer-review. The project will be published in a journal that matches the target audience and clinical setting with the target patient population (Oermann & Hays, 2016). It will be published in the STTI journal

(Zaccagnini & White, 2011). This will serve as a resource for nursing documentation and contribute to the advancement of nursing knowledge, and profession.

Executive Summary

The project highlighted the deficiency in nursing documentation and the need for continuous training and periodic monitoring of nursing documentation at the home health agency. The retraining program had a positive impact on quality of nursing documentation. The educational training using VIPS model increased nurses' understanding of the nursing process in keeping with nursing practice. It improved the quality of nursing documentation as well as the organization's computerized charting. Structured documentation through VIPS model is timesaving. The importance of effective nursing documentation cannot be overemphasized, as it enhances communication among health care team, clinical decision-making, patient safety, quality of care provided to patients and ultimately promotes better patient outcomes. This project contributed to social change as it improved communication of patient status to other healthcare professionals, enhanced nursing documentation skills, adherence to quality standards, patient outcomes, and patient satisfaction. Additional research on factors that affect nursing documentation could be useful.

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Appendix A: Criteria for Minimum Standard of Nursing Documentation

Minimum standards of nursing documentation	Criteria within NMCAT audit tool
1. Should be patient-centered	<p>The patient was referred to by name in the nursing progress notes. There was an entry recording the status of the patient, whether changed or unchanged, on each shift.</p> <p>Any change in the patient(s) status was indicated and objective information documented.</p> <p>The action taken by a nurse when finding a change in the patient(s) status was recorded.</p> <p>The patient(s) response to medication was stated.</p> <p>The patient(s) response to treatment (other than medication) was stated.</p>
2. Must contain actual work of nurses including education and psychosocial support	<p>The action taken by a nurse when finding a change in the patient's status was recorded.</p>
3. Is written to reflect the objective clinical judgment of the nurse	<p>The education and/or psychosocial care provided by nurses was recorded in the notes.</p> <p>The patient's problem(s) was written in terms of what was observed by the nurse.</p> <p>Any change in the patient's status was indicated and objective information documented.</p> <p>The observation, sign or symptom, was written in terms of what the nurse observed and was not based on the nurse's assumptions about the patient.</p>
4. Presented in a logical and sequential manner	<p>The nursing documentation was a chronological report of events that describe the patient's experience from admission to discharge.</p> <p>Entries were written in a logical and sequential manner.</p> <p>The action taken by a nurse when finding a change in the patient's status was recorded.</p> <p>The patient's response to medication was stated.</p> <p>The patient's response to treatment (other than medication) was stated.</p>
5. Written contemporaneously, or as events occur	<p>Entries were written as incidents (unusual events) occurred.</p>
6. Should record variances in care within and beyond the health care record	<p>Entries in documentation appeared uniquely.</p>
7. Should fulfill legal requirements	<p>All entries in the nursing documentation were legible.</p> <p>There was a recorded date and time on every entry in the nursing documentation.</p>

Criteria can be for more than one standard (Johnson et al., 2010)

Appendix B: Nursing and Midwifery Content Audit Tool (Johnson et al., 2010)

SECTION B: Nursing Documentation Content

Examine the written text, within the time period selected (per home visit) for this record audit, for any evidence of each of the following criteria and code according to the notes below. Explanatory notes follow.

Absent – Criteria not present in any of the written text

Present – Criteria occasionally present (not all relevant information is included in the note for the visit date)

Always Present – Criteria always present (all relevant information present in note for

	Absent	Present	Always Present	Not Rated
1. The patient's problem(s) is written in terms of what the patient actually said or what was observed by the nurse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is an entry recording the status of the patient, whether changed or unchanged, on each visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Any change in the patient's status is supported. By documented objective information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Any observation, sign or symptom, is written in terms of what the nurse observed and is not based on the nurse's assumptions about the patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The action taken by a nurse when finding a change in the patient's status is recorded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The patient's response to treatment (other Than medication) is stated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The patient's response to medication is stated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8. The nursing documentation is a chronological report or events that describe the patient's
experience from admission to discharge
- 9. All nursing entries in the patient's notes are Legible.....
- 10. There was a recorded and date on every nursing entry in the patient's note.....
- 11. Entries were written as incidents occurred.....
- 12. Entries were written in a logical and.....
sequential manner
- 13. Entries in documentation appear uniquely.....
- 14. The education and / or psychosocial care.....
provided by nurses is recorded in the notes
- 15. The patient is referred to by name in the.....
nursing entries of the patient's notes

Appendix C: Nursing and Midwifery Content Audit Tool: Explanation of Categories

(Johnson et al., 2010).

Final explanatory notes relating to the criteria and additional information collected within the NMCAT (Johnson et al., 2010).

	Absent	Present	Always Present	Not Rated
1	Notes are not written in the patient's words nor what was observed by the nurse (e.g., comments such as appears, seems, etc.). The language used in the note is mostly subjective in nature.	Some, but not all, notes are objectively written in the patient's words or what was observed by the nurse (e.g., patient is, patient states).	All notes are objectively written in the patient's words or what was observed by the nurse (e.g., patient is, patient states).	No objective information is required- (this will be a rare situation)
2	Note does not include a description of the patient's status.	Note has some entries within the visit date containing a statement regarding the patient's condition. (e.g. the patient's condition is deteriorating and she stated that he was 'having difficulty breathing' was documented in the 'comments section' of each area of the body system assessment). (e.g. Ms. Doe had shortness of breath during this visit).	Note has all entries for the date of visit containing a statement regarding the patient's condition (e.g. the patient's condition is deteriorating and she was 'having difficulty breathing'). (e.g. Ms. Doe had shortness of breath). The note emphasizes the patient' change in status.	No status would be required due to the context- (this rarely happens)
3	Note has no evidence of a change in the patient's	Some aspects of the note contain evidence of a change in the	Note contains evidence of a change in the patient's condition	Note has no evidence of a change in the patient's condition

	condition, but written text does not include description of the patient's status, nor any observable signs or symptoms.	patient's condition, and some, but not all, relevant information such as description of observable and recorded signs and symptoms (e.g., wound area had greenish drainage, redness, temperature of 99.7, wound measurement) and whether this an improvement or deterioration. The emphasis is on objective information.	plus a description of the observable and recorded signs and symptoms (e.g. wound had greenish drainage, redness, temperature of 99.7). It was indicated that this is an improvement or deterioration. The emphasis is on objective information supporting change in status.	(existing problems continue or problems are resolved).
4	Note is not written in terms of observable behavior. Note may include assumptions about the patient's condition.	Some, but not all aspects of the note are objectively written in terms of observable behavior (e.g., Mr. Doe was found guarding his abdomen and stated "It hurts a lot").	The note is objectively written in terms of observable behavior (e.g., Mr. Doe was found guarding at his abdomen and stated "It hurts a lot").	There is no evidence of a change in the patient's condition.
5	The note indicates evidence of deterioration in the patient's condition, but there is no description of actions taken by the nurse.	The note indicates evidence of deterioration in the patient's condition, and some, but not all, relevant information including a description of actions taken by the nurse (e.g., contacted patient's primary care physician PCP), elevated Ms. Doe's	The note indicates evidence of deterioration in the patient's condition, and all relevant information regarding description of actions taken by the nurse (e.g., contacted the PCP, elevated Ms. Doe's feet above heart level).	The note has no evidence of deterioration in the patient's condition.

		feet above level of heart).		
6	There is evidence of the patient receiving treatment, but note does not include a description of the patient's response to the treatment. Treatment could include blood sugar check, wound care blood draw etc.	There is evidence of the patient receiving treatment and some, but not all, relevant information including a description of the patient's response to the treatment (e.g., Mr. Johnson tolerated blood sugar check procedure well). Treatment could include blood sugar check, wound care, blood draw).	There is evidence of the patient receiving treatment and all relevant information including a description of the patient's response to the treatment (e.g., Mr. Johnson tolerated blood sugar check procedure well). Treatment could include blood sugar check, wound care, blood draw.	There is no evidence of the patient receiving any treatment.
7	Note has no evidence of the patient receiving a prn, but written text does not include a description of the patient's response to the medication. Note: PRN is a medication ordered e.g. to reduce a patient's pain or to reduce blood pressure and is taken as needed.	Note has evidence of the patient receiving prn medication and some, but not all, relevant information including a description of the patient's response to the medication (e.g., pain level decreased to 0/10 using the numeric pain scale at the end of the visit) in the current note. Note: PRN medication is a medication ordered e.g. to reduce a patient's pain or to reduce blood pressure and is taken as needed.	Note has evidence of the patient receiving prn medication and all relevant information including a description of the patient's response to the medication (e.g., pain level decreased to 0/10 using the numeric pain scale at the end of the visit) in the current note. Note: PRN medication is a medication ordered e.g. to reduce a patient's pain or blood pressure and is taken as needed.	Note has no evidence of the patient receiving any prn medication.
8	Note contains written text that does not describe	Some, but not all, written text in the note describes a	Note has written text that describes all progressive	There is no written note in the time period.

	a progressive series of events in time order.	progressive series of events in time order.	series of events in time order.	
9	Note is illegible.	Most written text in the note is legible.	The note is legible	
10	Note did not include a date or time.		Note include a date and time.	
11	There is evidence that unusual events (other than normal activities, e.g. nurse contacting the PCP while in the patient's home or patient fall during the visit) occurred during the visit, but there was no evidence of specific times when events occurred.	There is evidence that unusual events (other than normal activities, e.g. Nurse contacting the PCP while in the patient's home or patient fall) occurred during the visit, some, but not all entries were written in the note, including specific times when incidents occurred.	There is evidence that unusual events (other than normal activities, e.g. nurse contacting the PCP while in the patient's home or patient fell during the visit), most of the entries in the note were written as the incidents occurred, including specific times when incidents occurred.	There is no evidence that unusual events (other than normal activities, e.g. nurse contacting the PCP while in the patient's home or patient fall during the visit) occurred.
12	There is evidence of events occurring during the visit, but entries in the note is made out of sequence (e.g., recording of events on dates or at times that have not followed the event appropriately).	There is evidence of events occurring during the visit, and some, but not all, entries in the note describe the pattern of events appropriately and in a logical and sequential order (e.g., procedure, observations for complications).	There is evidence of events occurring during the visit, and all entries describe the pattern of events appropriately and in a logical and sequential order (e.g., procedure, observations for complications).	No evidence of events occurring during this visit.
13	Note includes normal data values (BP, temperature, education etc.) that is also recorded, signed and dated on other nurses' notes (i.e.,	Some, but not all notes, include normal data values (BP, temperature, etc.) that is also recorded, signed and dated on other nurses' notes (i.e.,	There is no evidence of duplication or normal data values (BP, temperature, education etc.) with this data being recorded only on	Note does not have routine daily observations.

	duplication-cutting and pasting the same information in another note).	some duplication-cutting and pasting the same information in another note).	other nursing charts (i.e., no duplication-no cutting and pasting the same information to another note).	
14	Note does not have entries of any education or psychosocial support being delivered, although the patient's clinical condition would require such care.		Note has some relevant entries showing evidence that nurse provided education and / or psychosocial support and it was received by the patient.	There is no evidence that education or psychosocial support is required- this is a rare occurrence.
15	The patient is never referred to by name (e.g., patient or 'Pt') rather than Mrs. Jones).	The patient is sometimes, but not always, referred to by name (e.g., Mrs. Jones instead of patient or 'Pt').	The patient is always referred to by name (e.g., Mrs. Jones instead of patient or 'Pt').	

Appendix D: Nursing Documentation Guideline/Checklist Handout

Nursing Documentation guideline/checklist- Minimum Standards of Nursing Documentation Before you submit your note online, have you documented:

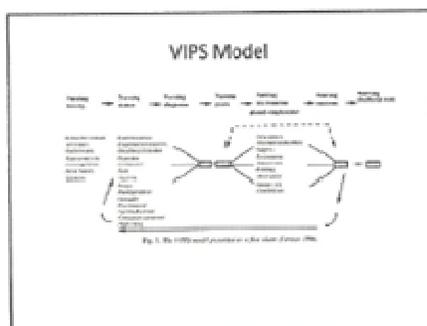
1. Patient's problem in terms of what the patient said or what you observed?
2. Patient's status, if changed or unchanged during every visit?
3. Patient's status change with objective information?
4. Observation, sign (s) or symptom (s) as observed, not based on your assumption?
5. Action (intervention) taken when finding a change in patient's status?
6. Patient's response to treatment (e.g. blood sugar check, wound care, administration of injection, blood draw etc.)?
7. Patient's response to medication (e.g. pain medication)?
8. In a chronological order describing patient's experience from admission to discharge?
9. Legibly?
10. The time, date of charting and included your name?
11. The times and dates of incidents that you are reporting?
12. In a logical and sequential manner?
13. Uniquely (without duplication of the same information i.e. cutting and pasting from a previous note)?
14. Education and/or psychosocial care provided to patient?
15. Patient's name in all entries (avoid use of 'pt' or 'patient')?

Note: Please document LBM for every patient visit and FBS for all patients with a diagnosis of Diabetes Mellitus, type 2

Appendix E: Nursing Documentation Power Point Slides

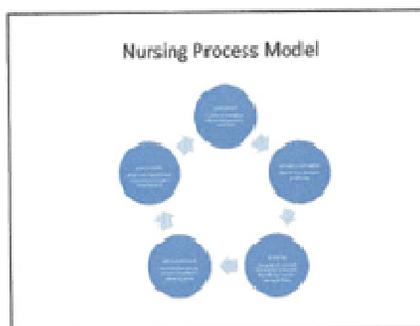
7/13/2016

<p style="text-align: center;">Improving the Quality of Nursing Documentation</p> <p style="text-align: center;">for Child Obesity Apixon Home Health Agency, Inc. 07/06/16</p>	<p style="text-align: center;">Learning Objectives</p> <p>At the end of the training session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Define the terms. 2. Discuss the purpose of effective documentation. 3. Explain effective documentation elements. 4. Discuss nursing documentation theoretical models- VIPS documentation frame work and nursing process model.
<p style="text-align: center;">Overview</p> <ul style="list-style-type: none"> • Nursing documentation is a recording of key health care facts related to patient care (TBON, 2014). • It is any printed or written record of nursing care. • It is a permanent record. • It is a critical aspect of care and a basic nursing skill • Nursing documentation should be done in compliance with Nursing Practice Act, Board of Nursing Rules & Regulations, Position Statements and Frequently Asked Questions (TBON, 2014). • Despite its importance, it is still often found to be inadequate. • 18 % of Board orders or complaints involve documentation or lack of documentation (TBON, 2014). 	<p style="text-align: center;">Purposes of Documentation</p> <ul style="list-style-type: none"> • Provides communication to other members of the healthcare team involved in patient's care • Patient safety • Facilitates continuity of care • A resource for reimbursement, education and research • Best defense in a malpractice claim • Practice within professional standards of care • Provides history of services rendered
<p style="text-align: center;">Components of an Effective Documentation</p> <ul style="list-style-type: none"> • According to TBON (2014) Rule § 217.11 (1) (D) of Board of Nursing Standards, document: <ul style="list-style-type: none"> - Accurately and completely report and document - Client's status including signs and symptoms - Nursing care rendered - Physician, dentist or podiatrist orders - Administration of medications and treatments - Client response (s) - Contact with other health care team members conveying significant events regarding client's status 	<p style="text-align: center;">VIPS Model Framework</p> <ul style="list-style-type: none"> • The VIPS documentation framework can be used to improve the quality of nursing documentation, especially for electronic documentation. <ul style="list-style-type: none"> - The VIPS model was scientifically developed in Sweden with the aim of supporting the systematic documentation of nursing care in patient records and promoting individualized care (Rytkko, 2009). - The model consists of four key concepts: well-being, integrity, prevention and safety which form the acronym VIPS in Swedish spelling (Rytkko, 2009). - The model improves nurses' analytical skills by application of nursing diagnosis in the documentation process (Danner et al., 2005). - The flowchart of the model begins with data collection of nursing history and nursing status, nursing diagnoses derived from these data, nursing goals and interventions selected and evaluated, then nursing outcomes are described and finally the discharge note. This is in accordance with the nursing process (assessment, diagnosis, planning, implementation, evaluation).



- ### VIPS Model Continued
- VIPS model reintroduces the nursing process, which in keeping with nursing practice as well as the organization of computerized charting includes the main sections: problems (diagnoses), interventions (treatments) and outcomes (Damer et al., 2004).
 - The VIPS model offers a structure which increases the nurse's knowledge base and improves the quality of nursing care (Damer et al., 2004).
 - In the VIPS model, the keywords are arranged in two levels. The first level of keywords corresponds to the steps of the nursing process, while the second level keywords includes nursing history, nursing status, and nursing intervention.

- ### Nursing Process Model
- The nursing process model has been widely used over the decades as the basic structure to record patient care in various settings. The model is useful for planning, delivering, monitoring and assessing perspectives in both paper- & electronic formats (Saranto et al., 2013).
 - Over the years nursing process model has included four to six phases—assessment, diagnosis, goal setting, planning, intervention and outcome assessment.
 - Nursing documentation based on nursing process facilitates effective care because clients' needs can be traced from assessment, helps in promoting the nurse-client relationship and empowers nurses in decision-making skills.



Nursing Process and VIPS Models

Nursing Process	Keyword on first level in the VIPS Model
Assessment	Nursing history Nursing status
Diagnosis	Nursing diagnosis Nursing goal
Planning	Planned nursing intervention
Implementation	Implemented nursing intervention
Evaluation	Nursing outcome Nursing message Discharge notes

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• Note: (It is not documented, it was not cited)

Appendix F: Lesson Plan

Class: Nurses (19)	Date: 7/13/2016
Location: Home Health Agency, Round Rock, TX	Time: 0900-400pm
Title: Improving the Quality of Nursing Documentation in a Home Health Agency	
<p>A. Materials/Resources/Equipment Needed:</p> <ul style="list-style-type: none"> • TV monitor • Flash drive • Video clip (TBON webinar on nursing documentation) • Computer • Paper and writing tools for learners • White board • Handout of PowerPoint presentation slides • PowerPoint presentation slides • Documentation checklist 	
<p>B. Intended Learning Outcomes (Learning Objectives): At the end of the training session, learners will be able to:</p> <ul style="list-style-type: none"> • Define quality nursing documentation • Discuss the purpose of effective documentation • Explain effective documentation elements • Discuss structured documentation models- VIPS and Nursing process 	
<p>"House Keeping"</p> <p>Announcements- Please set your phones on silent or vibration.</p> <p>Step outside to take your personal calls.</p> <p>This will be an interactive session and I encourage the participation of every one.</p> <p>Assignment: 1. Identify and discuss some of the implications of poor nursing documentation</p> <p style="padding-left: 40px;">2. Why is effective documentation of patient care important?</p> <p>Next Assignment will be due after we return from lunch break</p>	
<p>Procedure:</p> <p>Introduction: (120 minutes)</p> <ol style="list-style-type: none"> 1. Gain learners' attention: set/focus 2. Inform learners of the objectives: motivation 3. Review previous related learning /stimulate recall on nursing documentation 4. Review some benefits of effective documentation 5. Distribute PowerPoint Presentation slides handout 	

Body: (Development) (2hrs 45minutes)

Learning activities: 1. On whiteboard write out some common errors or omissions noted in a sample of nursing notes reviewed. No identifiers will be used. Explain how those omissions or missing information can jeopardize clinical decision-making and patient safety or outcomes.

2. Show the video clip of the nursing documentation webinar by Texas Board of Nursing. Provide the hyperlink to the learners as a resource.

3. Guide the learners as they interact with peers and discuss what they had learned from the video clip and as they reflect on their own documentation practice.

4. Ask learners to report what they had learned from their peers, video clip, PowerPoint presentation and what they would improve upon in their documentation of patient care.

Eliciting desired behaviors: application and drill

Provide two case scenarios and on paper and pencil ask each learner to document patient care provided and other relevant information that may be applicable using knowledge from VIPS and nursing process models.

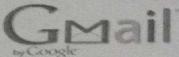
Provide individual supervision and feedback to the learners

Closure: (60 minutes)

1. RN supervisor will show support to nursing staff
2. Distribute documentation checklist to learners
3. Summarize purpose of improved quality of nursing documentation; review benefits of quality nursing documentation; provide conclusion and linkage to improved communication amongst health care providers, continuity of care and better patient outcomes
4. Solicit feedback from learners on effectiveness of the training session
5. Recommend nurses and managers auditing nursing notes periodically to empower nurses and improve the quality of nursing documentation in daily visit notes.
6. Clean up

Appendix G: Permission Letter

Walden University Mail - Permission to use nursing documentation audit tool Page 1 of 4

 Chidiadi Obioma <chidiadi.obioma@waldenu.edu>

Permission to use nursing documentation audit tool
6 messages

Chidiadi Obioma <chidiadi.obioma@waldenu.edu> Fri, Sep 25, 2015 at 8:55 PM
To: d.jefferies@uws.edu.au

Hello Diana,

I am a doctoral student with Walden University in United States. I am currently working on a project on improving nursing documentation in a home health care agency. Please, I am asking for your permission to use the Nursing and Midwifery Content Audit Tool (NMCAT) for nursing documentation content. This article was published in 2010.

Thank You.
Chidiadi Obioma

Diana Jefferies <D.Jefferies@westernsydney.edu.au> Sun, Sep 27, 2015 at 7:11 PM
To: Chidiadi Obioma <chidiadi.obioma@waldenu.edu>
Cc: "Maree.johnson@acu.edu.au" <Maree.johnson@acu.edu.au>

Dear Chidiadi,
Thank you for your email. I am delighted that you would be going to use our audit tool for your project. Of course, you have our permission, please just reference the tool using the article from the Journal of Nursing Management as required.
Best wishes and if you have any further questions, just ask,
Diana

Diana Jefferies | Lecturer
School of Nursing and Midwifery
Building EB/LG Room 38, Parramatta South Campus
P: 9685 9304 | **F:** 9685 9023 | **E:** d.jefferies@westernsydney.edu.au

Western Sydney University
Locked Bag 1797 Penrith NSW 2751 Australia
www.westernsydney.edu.au/nursingandmidwifery

From: Chidiadi Obioma [chidiadi.obioma@waldenu.edu]
Sent: Saturday, 26 September 2015 11:55 AM
To: Diana Jefferies
Subject: Permission to use nursing documentation audit tool

[Quoted text hidden]

Chidiadi Obioma <chidiadi.obioma@waldenu.edu> Mon, Sep 28, 2015 at 7:47 PM
To: Diana Jefferies <D.Jefferies@westernsydney.edu.au>

Dr. Diana,

I appreciate your granting me permission to use the NMCAT audit tool. I will definitely reference the tool.

Thank You.
Chidiadi Obioma

<https://mail.google.com/mail/u/0/?ui=2&ik=98a641727b&view=pt&q=d.jefferies%40uws.edu.au&q=true&sea...> 1/18