

2018

# Implementation of a Standardized Approach to Diabetes Education

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*Walden University*

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# Walden University

College of Health Sciences

This is to certify that the doctoral study by

Stacey Williams Porter

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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2018

Abstract

Implementation of a Standardized Approach to Diabetes Education

by

Stacey Williams Porter

MSN, Florida A&M University, 2002

BSN, Florida State University, 1998

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

Walden University

August 2018

## Abstract

The Centers for Disease Control and Prevention (CDC) report that Type 2 diabetes mellitus (T2DM) is a serious health issue affecting over 24 million Americans. Adults with T2DM are 2 to 4 times more likely to experience complications of the disease such as heart disease and stroke. Efforts are needed to control the condition and prevent the complications. At a local community hospital in the southeast United States, a 2-year assessment revealed over 10,000 patients admitted with diabetes or diabetes-related complications. Staff nurses at the site were responsible for diabetes self-management education for T2DM patients at discharge; however, no standardized approach to discharge diabetes education was used. The purpose of this project was to educate the nursing staff on a standardized approach to T2DM patient education using the nurse education and transition model protocol. The education program was presented to 11 nurse participants during 3-in-service training sessions held over a 1-week period. A diabetes education checklist sheet (DECS) served to guide the standardized self-management discharge education. At the end of the training session, participants evaluated the quality of the session and their confidence in using the DECS. Ninety-one percent of the participants stated that they were confident or very confident in their ability to use the DECS after the inservice education and that they had the knowledge needed to use the DECS in discharge teaching. The project promotes positive social change through improved nurse knowledge and confidence in teaching T2DM patients at discharge, and through improved diabetes self-management education, potentially reducing the risk of T2DM complications.

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## Dedication

I want to dedicate this publication in loving memory to my parents, the late Ms. Myra Bell Dickens-Mc-White and the late Mr. Willie D. Williams. My parents throughout my formative years were the guiding force for my continued perseverance and success. I always remembered my parent's wise words, "girl you better get something in your head." Well, Daddy and Mommy, this one is for you.

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## Section 1: Nature of the Project

### **Introduction**

A national objective of Healthy People 2020 is to decrease the percentage of persons with diabetes to 7.2% by the targeted year (Healthy People 2020, 2013). The Centers for Disease Control and Prevention (CDC, 2011) affirmed this target, noting that diabetes mellitus is a serious health issue affecting over 24 million Americans. Adults diagnosed with diabetes are two to four times more likely to experience complications from heart disease and stroke (CDC, 2011). The financial impact that diabetes is having on the healthcare system is substantial.

Krall, Donihi, Hatam, Koshinsky & Siminerio (2016) noted that implementing diabetes education in an acute setting can be challenging. Acute care settings impact the delivery of diabetes education due to the lack of privacy, noise level, the stress of hospitalization, and other distractions. Also, staff nurses often carry a heavy patient load and may be underprepared to address the teaching needs of the elderly, who may have cognitive, literacy, or health belief challenges.

Stakeholders at a local community hospital in the southeast United States identified a need to have a culturally sensitive standardized diabetic teaching process for patients with type 2 diabetes mellitus (T2DM). The stakeholders at this hospital evaluated the existing process and developed a new standardized approach to teaching diabetes education using the nurse education and transition (NEAT) model. Implemented interventions would help to address health disparities as outlined in the Healthy People 2020 national objectives as they relate to diabetes.

### **Problem Statement**

A local community hospital in the southeastern United States does not have a certified diabetes educator on site. As a result, staff nurses in this setting were responsible for delivering T2DM patient education. A preliminary review of electronic records revealed that between 2014 and 2016, 11,085 patients admitted with diabetes or diabetes-related complications. As part of the practicum experience, interviews with members of the endocrinology team and nurses were conducted to identify the gaps in service at this local community hospital. A semi-structured interview guide was used to collect the data (see Appendix A). Also, the nurse practitioner, diabetes educator, members of the case management team, and community programs such as the Local Access to Coordinated Healthcare (LATCH) for the underinsured of the county and the African American Health Improvement Project (AHIP) shared input into both systematic and patient barriers that exist. The following gaps in practice were found: (a) No dedicated diabetes educator on site, (b) inconsistency across the units regarding the use of diabetic champions (registered nurses trained in diabetes education and management), and (c) a strong need among nurses to have a better understanding of diabetes treatment and management.

Standardizing the delivery of diabetes education was critical as it related to providing continuity of care. The goal of standardizing the delivery of diabetes education to decrease the likelihood of T2DM patients being readmitted. Also, the process needed to be adapted to provide a patient-centered approach that addressed the health literacy levels and culture of the patients.

### **Purpose**

The purpose of this project was to develop an education program to educate the nursing staff on a standardized approach to educating patients with T2DM using the NEAT protocol. A diabetes education check sheet (DECS) and the packet was developed to inform the registered nurses (RN) on how to deliver standardized diabetes education to patients discharged from the medical-surgical unit. The check sheet and packet included information about various topics related to T2DM self- management such as nutrition, glucose monitoring, and medication management. The registered nurses, on one medical-surgical unit piloted the protocol. All RNs invited to attend the program. The practice-focused question was: Does the implementation of a standardized approach to diabetes education using the NEAT model improve RNs' knowledge and competence regarding T2DM patient education?

### **Nature of the Doctoral Project**

An education program for RNs on a medical-surgical unit to use the NEAT protocol to teach patients with T2DM was held. The goal of the educational program was to evaluate this program and the DECS. The education program followed the *Walden University DNP Project Manual for Staff Education*.

### **Significance**

The stakeholders consisted of the nursing staff and administration on the medical-surgical floor at a local community hospital. This education project addressed the gap in knowledge and consistency regarding delivering T2DM patient education at this community hospital. The successful implementation of the NEAT protocol to teach

patients with diabetes may be transferable to similar acute care settings who serve diabetes patients; this would lead to positive social change by improving diabetes self-management for patients with T2DM.

### **Summary**

RNs are responsible for discharge teaching among patients admitted to the hospital with diabetes or diabetes-related complications. However, there is no standardized method of delivery of diabetes education in this acute care setting. The purpose of this project was to educate the nursing staff on a standardized approach to teach patients with T2DM using the NEAT protocol. Successful implementation will provide positive healthcare outcomes for patients, which are in alignment with the American Diabetes Association (ADA) guidelines. Section 2 will discuss the background and context, this will include information on the concepts and theories and relevance to nursing practice.

## Section 2: Background and Context

### **Introduction**

Due to the shortage of diabetic educators in this community hospital, nursing staff are tasked with the responsibility for providing patient discharge teaching to patients who are admitted with diabetes or diabetes-related complications. These nurses expressed a need to find innovative and efficient mechanisms to discharge teaching for this patient population. The purpose of this project was to educate the registered nursing staff on a standardized approach to T2DM patient education using the NEAT protocol. This project introduced the DECS for inpatients diagnosed with T2DM which was based upon the NEAT model. The practice-focused question was: Does the implementation of a standardized approach to diabetes education using the NEAT model improve RNs' knowledge and competence regarding T2DM patient education? This section discusses the model and theories, relevance to nursing practice, local background, context, and the role of the DNP student.

### **Concepts, Models, and Theories**

The project was guided by the focus, analysis, development, and execution (FADE) model for quality improvement and the Malcolm Knowles' theory of adult learning. The staff education program followed the *Walden University DNP Manual for Staff Education*. The NEAT model was used to develop the education program.

**FADE Model**

The FADE sequence includes focusing on the problem, analyzing or collecting the data, development of an action plan, and execution. The team describes the problem, gathers data relevant to the problem, develops the plan to address the problem, and implements the intervention. The practicum site was affiliated with a larger healthcare organization that uses the FADE model for quality improvement projects.

**Theory of Adult Learning**

The Theory of Adult Learning, developed by Malcolm Knowles (Knowles, Holton & Swanson, 1998; Smith, 2002) supports the design of this project through his four principles. Table 1 describes the relationship of the project to adult learning principles. The theory of adult learning guides the project through core principles which provide adequate instruction and evaluation to the adult learner.

Table 1

*Relationship of Theory to Education Program*

| Knowles Principles of Adult Learning   | Education Program   |
|--|---|
| Adults need to be involved in the planning and evaluation of their instruction | Implement a pilot project and obtain feedback from nurse participants.                                |
| Experience supports the basis for teaching and learning in adults.             | Participants will have an opportunity to discuss real-world experiences during the education program. |



---

|  |  |
|--|--|
| Adults are interested in learning material that has immediate relevance to their work. | Participants provide care for T2DM patients daily.   |
| Adult learning is problem-centered   | The education program discusses the issues that registered nurses have identified in caring for T2DM patients. |

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### **Diabetic Teaching Model**

According to Krall et al. (2016), given an increase in the number of persons diagnosed with diabetes mellitus, providing patient education for persons with diabetes mellitus is critical. Many acute care facilities are examining alternative means for delivering diabetes patient education during the patient's inpatient stay and the responsibilities of the educator to render this service. Acute care settings are embracing models that are designed to address the delivery and concentration of diabetes education to focus on key survival skills. Survival skills include providing the patient with diabetes education on the following: Hypoglycemia, medications, nutrition, and blood glucose monitoring.

Krall et al. (2016) argued staff nurses are expected to educate patients on survival skills; however, many of them feel unprepared and overcome with additional responsibilities resulting in fragmented delivery of diabetes patient education. Therefore, patients are discharged lacking the self-management skills and referral for ongoing diabetes self-management education (DSME), resulting in complications and subsequent readmissions.

The goal of the NEAT protocol was to supplement the current inpatient diabetes self-management program within the local community hospital to improve long-term patient outcomes. The rationale behind NEAT is in alignment with the Joint Commission on Hospital Accreditation (JCAHO) and ADA advocacy for inpatient programs to incorporate education for staff and patients to facilitate self-management (Krall et al., 2016). The value of the NEAT model is that it is specifically designed to include nurses and provide tools to render efficient delivery of diabetes education to patients diagnosed with T2DM within the inpatient setting.

### **Relevance to Nursing Practice**

This review of literature used databases and search engines which included Google Scholar, CINAHL Plus with full text, and Walden Library. All papers published in peer-reviewed journals regarding adults 18 and older and published in the English language were considered. A total of 22 articles were reviewed and are cited in this study. The keywords used were Diabetes Mellitus Type 2, inpatient type 2 diabetes, best practices in the delivery of diabetes education, quality improvement models in nursing, type 2 diabetes and hospital readmissions, diabetes champions, Technology Informatics Guiding Education Reform (TIGER) Initiative, diabetes self-management, nurse education and transition model, focus, analyze, develop, and evaluate (FADE) model, and cognitive information processing model. Relevant publications related to T2DM from the CDC, American Association of Colleges of Nursing, American Journal of Managed Care, United States Department of Health and Human Services, Agency for Healthcare Research and Quality, and National Institutes of Health (NIH) websites were also

reviewed.

### **The Need for T2DM Patient Education**

Diabetes mellitus continues to be a national epidemic (Healthy People 2020, 2013). Persons with diabetes have a higher risk of acquiring other health complications (CDC, 2011). Bunn (2009) said the economic impact associated with treating diabetes continues to climb, with the combined cost of treating persons with diabetes in 2007 totaling \$174 billion. Jornsay & Garrett (2014) reported that roughly 26 million people in the United States are diagnosed with diabetes, and 79 million are prediabetic. Of the patients admitted to acute care settings, 50% of those patients have a primary or secondary diagnosis of T2DM. Patients admitted to the hospital with diabetes, or diabetes-related complications may have their treatment regimen adjusted to help stabilize their blood sugar (Jornsay & Garnett, 2014). Thus, patient education is critical upon discharge, for improving patient outcomes including reducing readmissions (Jornsay & Garnett, 2014). The statistics reveal a rise in the incidence of diabetes; however, only 11,000 certified diabetes educators exist nationwide (Jornsay & Garnett, 2014).

### **Standards of Care Practice Guidelines**

Gerard, Quinn & Fitzpatrick (2010) said that transfiguration of diabetes care within the hospital setting to provide optimal glycemic control requires a multidimensional approach. The Joint Commission stipulated inpatient educational requirements and healthcare organizations are responsible for providing mechanisms to render quality care regardless of the barriers that may exist. Diabetes or diabetes-related

complications rank third as a reason for readmissions (Hines, Barrett, Jiang & Steiner, 2014; Jorsay & Garnett, 2014). Gerard et al. (2010) argued in support for continuing education for healthcare personnel with an emphasis on including evidence-based literature protocols and ways to assess competency all of which supports nursing knowledge. The knowledge of the nurse is vital to rendering quality healthcare for patients diagnosed with diabetes. In this evidenced-based project, the clinical gap in practice was addressed by standardizing the delivery of diabetes education with the nursing staff in efforts to improve the patient's ability to self-manage and reduce readmissions. The NIH (2017) noted strategies to improve health outcomes include 1) promoting and implementing culturally and linguistic applicable tools that foster behavioral change and 2) identifying evidenced-based culturally appropriate mechanisms to support behavior modification.

### **Barriers to T2DM Education**

Acute care settings, such as this local community hospital are challenged by the delivery of diabetes education for both the staff nurses and patients. Krall et al. (2016) noted that implementing diabetes education in the acute setting could be challenging due to characteristics of the acute care setting such as lack of privacy, noise level, the stress of hospitalization, and other distractions. Also, staff nurses are often overworked and under-prepared to address the teaching needs of the elderly who may have cognitive, literacy, or health belief challenges. Given the fact that the number of diabetes patients continues to increase, and there is a shortage of diabetes educators (Krall et al., 2016), the interest into efficient and innovative ways to deliver diabetes education has increased.

The development of the Nurse Education and Transition (NEAT) model provides a standardized, innovative and efficient mechanism for nurses to provide diabetes education.

### **Local Background and Context**

The facility was a community hospital located in the southeast region of the United States. The hospital has 369 beds and provides a variety of general health services to the community. Data retrieved from 2014-2016 revealed that 11,085 patients were admitted with diabetes or diabetes-related complications. The hospital has a Diabetes Self-Management Education (DSME) program, which teaches patients with diabetes the fundamentals of self-care. The program helps patients understand their disease as well as how to manage it. The evidence-based project provided a standardized delivery approach to use in educating and conducting discharge planning for patients with T2DM. The interventions implemented would address inconsistencies in delivering patient education to diabetes patients at discharge in this setting. This education project aligns with a national objective to decrease persons diagnosed with diabetes to 7.2% by 2020 the target year (Healthy People, 2020).

### **Role of the DNP Student**

As the project director, I developed the patient education materials and the education program. I provided an educational in-service for the nurses. In alignment with the American Association of College of Nursing DNP Essentials (AACN, 2006), I designed and implemented a new patient education approach that uses evidence-based practice literature to address the needs of the target population. As this local community

hospital serves a significant proportion of patients with T2DM. As an African American woman with relatives diagnosed with T2DM, I recognized the need for continued education in patients diagnosed with this disease. The project was a continuation of my work at the MSN level with my thesis titled *Lived Experience of African American Women with Type 2 Diabetes*.

### **Role of the Project Team**

A project team of stakeholders consisted of the nurse executive, nurse manager, diabetes educator, nurse practitioner, nurse researcher and nursing informatics served as content experts for this project. They also assisted with the planning and implementation of the education project.

### **Summary**

The purpose of this project was to educate the nursing staff on a standardized approach to T2DM patient education using the NEAT protocol. The NEAT protocol helped to address a gap in clinical practice among nursing staff as it relates to the delivery of diabetes education. Section three will cover the plan for developing the educational intervention, collecting and analyzing the evidence.

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

Due to the shortage of diabetic educators in this acute care setting, nursing staff are tasked with the responsibility for providing patient discharge teaching to patients who are admitted with diabetes or diabetes-related complications. Nurses at this local community hospital expressed a need for a standardized and effective method of teaching diabetes patients at discharge. This project intended to instruct the nursing staff on a standardized approach to educating patients with T2DM using the NEAT protocol.

#### **Practice-focused Question**

This local community hospital does not have a certified diabetes educator on site. As a result, staff nurses in the acute care setting are responsible for delivering diabetes education to patients on site. This study identified a lack of continuity of care among the units in the use of diabetic champions who are trained RNs teaching diabetes. The staff nurses recognized a need for continuing education and a consistent model for the delivery of diabetes education at discharge for patients.

An educational in-service was provided to the nurses on how to use the DECS and packet to standardize the delivery of diabetes education to patients at discharge. The goal of the DECS and packet was to help promote efficiency and consistency of the delivery of diabetes education. The practice-focused question was: Does the implementation of a standardized approach to teaching patients with diabetes using the NEAT model improve RNs' knowledge and competence regarding T2DM patient education?

The Joint Commission stipulated inpatient educational requirements and healthcare organizations are responsible for providing mechanisms to render quality care regardless of the barriers that may remain (Nettles, 2005). The nurse's knowledge is vital to rendering quality healthcare for patients diagnosed with diabetes (Gerard et al, 2010). This evidence-based project addressed whether standardizing the delivery of diabetes education with the nursing staff would improve the patient's ability to self-manage and reduce readmissions.

### **Sources of Evidence**

The rationale behind NEAT is in alignment with the JCAHO and ADA advocacy for inpatient programs to incorporate training for staff and patient self-management (Krall et al., 2016). The value of the NEAT model is that it is specifically designed to include nurses and provide tools to render efficient delivery of diabetes education to patients diagnosed with diabetes mellitus within the inpatient setting.

### **Evidence Generated for the Doctoral Project**

#### **Participants**

The target population consisted of RNs on a medical-surgical unit in a local community hospital located in the southeast region of the United States. The participants are responsible for the delivery of diabetes education to T2DM patients at discharge. The RNs participation was entirely voluntary.

#### **Procedure**

**Planning** Stakeholders at the facility identified a need to have a culturally sensitive standardized diabetic teaching process for patients with T2DM. The team (DNP



student, nurse executive, nurse manager, diabetes educator, nurse practitioner, nurse researcher and nursing informatics) evaluated the existing standard operating procedures for discharging T2DM patients. The following gaps were found: a) there were no dedicated diabetes educators on site b) there were inconsistencies across the units in the use of diabetic champions and c) there was a need among nurses to have a better understanding of diabetes treatment and management. Based on these observations, the team developed a new standardized approach to teaching patients with T2DM using the NEAT model at bedside. In developing the new procedure, the team ensured that the following elements were incorporated: the educational material was simplified and consolidated, so the delivery did not exceed thirty minutes. The team also discussed creating a script for the nurses to follow on how to deliver the diabetes education at discharge which was incorporated in the DECS and packet.

### **Implementation**

Permission was obtained from both University Health systems and Walden University Institutional Review Boards (IRB). A letter of cooperation was completed by the facility. After obtaining the necessary approvals, the medical-surgical unit was notified about the implementation of the education program. A flyer was posted in the breakroom by staff personnel inviting participants to the in-service. The nurse manager sent an email announcement to the RNs on the medicine floor informing them of the dates and times of the in-service.

## **Consent**

Participation in this quality improvement project and completion of the evaluation form was completely voluntary. No identifiable data was collected from or about in-service attendees. Therefore, written consent was not required. Participants received a project information sheet about the optional evaluation form at the beginning of the in-service (see Appendix B). Participants indicated their willingness to participate by completing and submitting anonymous evaluation forms at the end of each session (Appendix C).

As part of the in-service session, nurses were given a diabetes education packet consisting of a local community resource sheet, diabetes education sheet on nutrition, blood glucose monitoring, medication management, insulin administration, and a DECS checklist to assess patient understanding of Type 2 diabetes. The nurses participated in a simulation exercise using the new DECS and packet (Appendix D).

A PowerPoint training module (see Appendix E) for an educational in-service was used to teach the nurses regarding the following areas: Objectives for course, the purpose of the program, available resources, identified barriers, the NEAT model, and the DECS which includes evidence-based diabetes survival skills for patients to self-manage at discharge.

## **Evaluation**

The in-service sessions were 30 minutes each and were held within a one-week period. The sessions were held at different times of the day. Two sessions were held in

the morning, and one session was held in the evening, a total of three sessions. A total of 11 participants attended the in-service and completed the evaluation form.

### **Summary**

The shortage of diabetes educators available in the inpatient setting has placed the responsibility of providing diabetes education on the staff nurses. This evidence-based project offers an innovative and efficient mechanism for staff nurses to deliver diabetes education to patients at discharge within the inpatient setting. This will ensure positive changes for nurses and patients with diabetes. Nurses will increase their competence to render diabetes teaching to patients and evaluate their level of understanding. Patients will be educated about diabetes and how best to improve their self-management.

## Section 4: Findings and Recommendations

### **Introduction**

Many acute care facilities are examining alternative means for delivering diabetes patient education during the patient's inpatient stay and the responsibilities of the educator to render this service. Krall et al. (2016) argued staff nurses are expected to educate patients regarding survival skills; however, many of them lack the training and are overcome with additional responsibilities, resulting in fragmented delivery of diabetes patient education. Thus, the purpose of this project was to educate the nursing staff on a standardized approach to T2DM patient education using the NEAT protocol and train nurses on how to use the DECS and packet. The goal of this project was to help promote efficiency and consistency of the delivery of diabetes education.

### **Findings and Implications**

Participants were asked to evaluate the quality of the session and provide confidence ratings about their ability to use the DECS. The summary of participant ratings are presented in Table 1. Ninety-one percent ( $n = 10$ ) of the participants stated that they were confident or very confident in their ability to utilize DECS after the in-service. Nine percent ( $n=1$ ) said that they were not very confident in their ability to utilize the DECS. All of the participants reported that they felt confident or very confident in their knowledge and ability to teach the essential survival skills to patients at discharge. The findings suggest the training program helped to increase nurses' knowledge and confidence in their ability to deliver diabetes education and use the DECS. An evaluation

of participants' comments ( $n = 4$ ) also seems to suggest that they found the training exercise to be helpful (see Appendix F).

Participants were also asked to rate the presenter's knowledge and ability to answer questions. Nine out of eleven participants rated presenter knowledge as excellent. Two out of eleven participants rated knowledge as good. Nine out of eleven participants rated the presenter's ability to answer questions as excellent. One hundred percent of the participants rated the presentation as excellent or good in helping them to gain a better understanding of how to deliver diabetes education and gain an understanding of the essentials skills to teach Type 2 diabetes patients (see Table 2).

Table 2  
Summary of Confidence and Skill Ratings

| Evaluation Items  | <sup>a</sup> N (%) |
|---|--------------------|
| How confident in your ability to use the Diabetes Electronic Education Check Sheet (DECS)?  | 10 (90.9)          |
| Be confident in the patient's ability to self-manage post discharge.  | 11 (100.0)         |
| Know to teach the essential survival skills to patients at discharge.   | 11 (100.0)         |
| Skillfully able to explain to the patient how to monitor for signs if the blood sugar is too low or if the blood sugar is too high? | 11 (100.0)         |
| Gain the knowledge of the resources available to deliver diabetes education within the inpatient setting.                           | 11 (100.0)         |
| How confident are you in the patients understanding of the diabetes self- care educational materials presented?                     | 11 (100.0)         |

- a. Frequency of individuals who report being confident or very confident.

Table 3.

## Ratings of In-Service Objectives

| <b>Objective:</b> By the end of the presentation the audience will:               | Excellent | Good     | Poor |
|---|-----------|----------|------|
| Have a better understanding of how to deliver diabetes education at discharge.    | 6 (54.5)  | 5 (45.4) | 0    |
| Have an understanding of the essentials skills to teach Type 2 diabetes patients. | 6 (54.5)  | 5 (45.4) | 0    |

### Recommendations

Based on the findings, providing diabetes education to nurses improved their overall confidence and ability to deliver basic diabetes education to patients with T2DM. One participant indicated they were not confident in their ability to use the DECS. Future recommendations would be to continue to use the DECS and packet. If the facility finds the training module and DECS to be of significant benefit, the training and the implementation of the DECS can be expanded across the hospital in the form of an electronic application that can be used with a tablet or computer. A second recommendation would be to have refresher sessions on how to use the DECS and packet. By standardizing the delivery of diabetes education hospital-wide, it is anticipated the process will improve the delivery of diabetes education and hopefully, patient's ability to self-manage T2DM and possibly reduce readmissions.

### **Strengths and Limitations of the Project**

A strength of the project is the standardized approach for nurses to deliver diabetes education. Nurses would have a consolidated mechanism through which to teach the essentials of diabetes management to T2DM patients. A limitation of the project was the project being limited to one unit within the local community hospital, and therefore, the feasibility and generalizability of implementing the intervention hospital-wide is unknown.

## Section 5: Dissemination Plan

As the project director, the dissemination of the findings was delivered via email in paper form to the nurse executive/management. The audience and venue impacting this project involved the nurses at the local community hospital.

### **Analysis of Self**

As the project director, collaboration with members of the research team regarding the findings from the needs assessment were conducted. A proposed intervention to address the gap in practice was shared with members of the team. Upon approval, the educational module and DECS was created. The IRB application process to submit the proposal was completed for both academic institutions before implementation.

### **Summary**

The purpose of this quality improvement project was to implement and evaluate a standardized approach to teaching diabetes education using the NEAT model as a framework. A diabetes education training module for staff nurses along with a DECS and packet using the NEAT tenants for the delivery of diabetes education was created. It is hoped, the implementation of this process may improve delivery of diabetic education for T2DM patients and improve their ability to self-manage post discharge.



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## Appendix A: Semi-structured Interview Guide

### Questions

1. What is your role?
2. In your opinion, how could the transition of care be improved for at-risk populations? i.e. on Medicaid, no insurance.
3. What tools do you think would help at-risk populations to self-manage their Diabetes?
4. As it relates to the inpatient setting what challenges have you noticed if any with the delivery of patient education with patients with Type 2 diabetes?
5. As it relates to the outpatient setting what challenges have you identified if any with the delivery of continuity of care?
6. In your practice area, what need have you identified?
7. What new approach would you suggest?
8. What new services would be of help for self-management with patients with type 2 diabetes?
9. What barriers have you identified in your practice?
10. What barriers have patients identified in their ability to self-manage?

### Nurses

1. At discharge, what educational material does the patient/caregiver receive?
2. What are your thoughts about the amount of patient education the patient receives?
3. What are the current tools for teaching that are being used? Also, what are your opinion of those tools?
4. What method is being used to evaluate the patients/caregiver level of understanding of the material being presented?
5. If you had to rate your comfort level with diabetic teaching on a scale from 1-10 what is it?
6. How is diabetic teaching being documented?
7. What supplies if any are sent home with the patient who a newly diagnosed?
8. What are your thoughts of the skills fair? What if anything would you like to see added? How would you like to see it improved? On a scale of 1-10 do you think it is helpful?
9. What are your thoughts of the online educational material for nurses regarding diabetes? On a scale of 1-10 do you think it is helpful? What would you like to see improved if anything?

10. Do we have online continuing educational material for nurses to evaluate the nurses level of understanding?
11. What are the diabetes champions roles? How are nurse's knowledge on diabetes evaluated?
12. What model/framework is used by the hospital?
13. Can you share information on the discharge process specifically for diabetics?
14. What resources do we have in place in the hospital to support the nurses on diabetic teaching/education for patients?

#### Providers

1. Patients, who are newly diagnosed with diabetes wherein the community would you refer them too?
2. People with diabetes with no insurance do they get a meter? If so, what type?
3. What community resources are you aware of that provide resources for patients with Medicaid?
4. What community resources are you aware of that you refer patients too if they have insurance i.e. BCBS?
5. What would you say are the gaps in the continuity of care?
6. What new services would you like to see provided?

## Appendix B: Consent to Participate

### **Consent Form for Anonymous Questionnaires**

*To be given to the staff member prior to collecting questionnaire responses—note that obtaining a “consent signature” is not appropriate for this type of questionnaire and providing respondents with anonymity is required.*

You are invited to take part in an evaluation for the staff education doctoral project that I am conducting.

#### **Questionnaire Procedures:**

If you agree to take part, I will be asking you to provide your responses anonymously, to help reduce bias and any sort of pressure to respond a certain way. Staff members' questionnaire responses will be analyzed as part of my doctoral project, along with any archival data, reports, and documents that the organization's leadership deems fit to share.

#### **Voluntary Nature of the Project:**

This project is voluntary. If you decide to join the project now, you can still change your mind later.

#### **Risks and Benefits of Being in the Project:**

Being in this project would not pose any risks beyond those of typical daily professional activities. This project's aim is to provide data and insights to support the organization's success.

#### **Privacy:**

I might know that you completed a questionnaire, but I will not know who provided which responses. Any reports, presentations, or publications related to this study will share general patterns from the data, without sharing the identities of individual respondents or partner organization(s). The questionnaire data will be kept for a period of at least five years, as required by my university.

#### **Contacts and Questions:**

If you want to talk privately about your rights in relation to this project, you can call my university's Advocate via the phone number 612-312-1210. Walden University's ethics approval number for this study is (Student will need to complete Form A in order to obtain an ethics approval number).

Before you start the questionnaire, please share any questions or concerns you might have. Please only complete the questionnaire if you consent to participating as described as above.



### Appendix C: Evaluation Form

#### Presentation Evaluation Form

Presenter Name: Stacey Williams Porter Date \_\_\_\_\_

| <b>Instructions:</b> Please rate your obesity counseling skills and confidence by circling one of the choices for each. Obesity counseling skills values range from excellent, good or, poor. | <b>Evaluation</b>                                 |
|---|---|
| <b>Presentation:</b>  |   |
| <ul style="list-style-type: none"> <li>After this in-service how confident do you feel in your ability to use the Diabetes Education Check Sheet (DECS)?</li> </ul>                           | Excellent<br>Good<br>Poor                         |
| <ul style="list-style-type: none"> <li>Presenter was knowledgeable about subject matter.</li> </ul>   | Excellent<br>Good<br>Poor                         |
| <ul style="list-style-type: none"> <li>Presenter was able to respond to questions with confidence and knowledge.</li> </ul>   | Excellent<br>Good<br>Poor                         |
| <b>Objective:</b> By the end of the presentation the audience will:   |   |
| <ul style="list-style-type: none"> <li>Have a better understanding of how to deliver diabetes education at discharge.</li> </ul>  | Excellent<br>Good<br>Poor                         |
| <ul style="list-style-type: none"> <li>Have an understanding of the essentials skills to teach Type 2 diabetes patients.</li> </ul>   | Excellent<br>Good<br>Poor                         |
| <b>Confidence &amp; Skill:</b> By the end of the presentation the audience will:  |   |
| <ul style="list-style-type: none"> <li>Be confident in the patient's ability to self-manage post discharge.</li> </ul>  | Very Confident<br>Confident<br>Not very confident |
| <ul style="list-style-type: none"> <li>Know to teach the essential survival skills to patients at discharge.</li> </ul>   | Very Confident<br>Confident<br>Not very confident |
| <ul style="list-style-type: none"> <li>Skillfully able to explain to the patient how to monitor for signs if the blood sugar is too low or if the blood sugar is too high?</li> </ul>         | Very Confident<br>Confident<br>Not very confident |
| <ul style="list-style-type: none"> <li>How confident in your ability to use the Diabetes Electronic Education Check Sheet (DECS)?</li> </ul>  | Very Confident<br>Confident<br>Not very confident |
| <ul style="list-style-type: none"> <li>Gain the knowledge of the resources available to deliver diabetes education within the inpatient setting.</li> </ul>                                   | Very Confident<br>Confident<br>Not very confident |

|   |   |
|---|---|
| <ul style="list-style-type: none"><li>• How confident are you in the patients understanding of the diabetes self- care educational materials presented?</li></ul> | Very Confident<br>Confident<br>Not very confident |
|---|---|

Comments \_\_\_\_\_

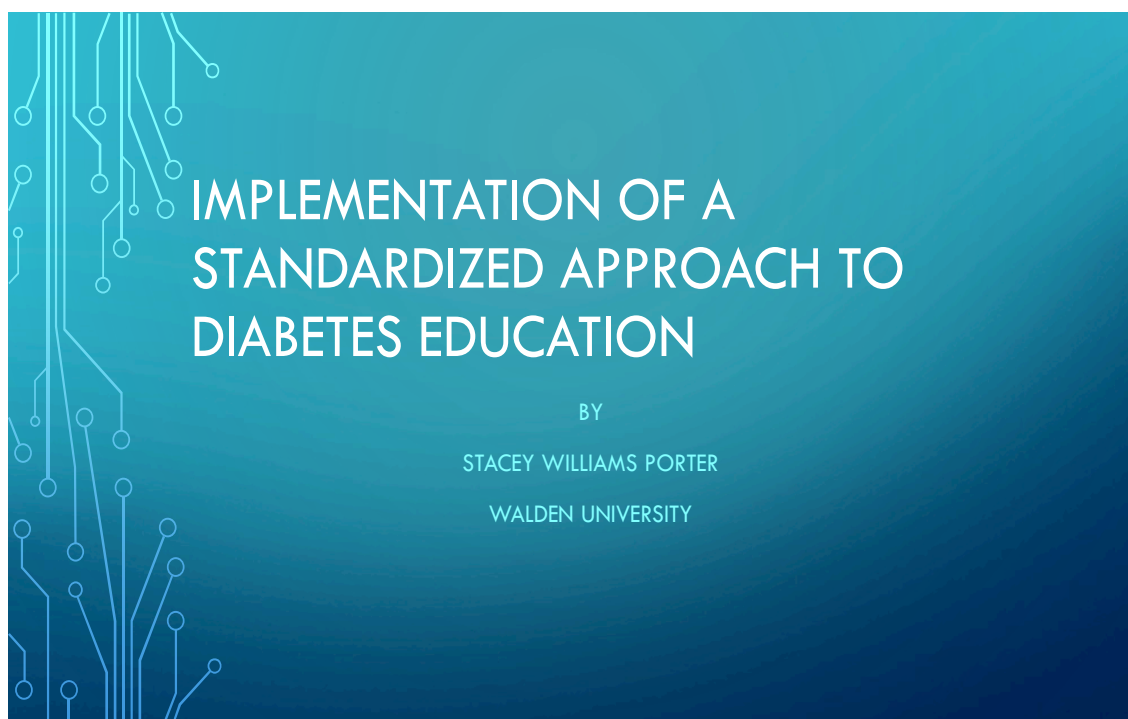
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Adapted template from, <https://www.poptemplate.com/download/presentation-evaluation-form-1.html>  
Downloaded from <http://www.tidyforms.com>

Appendix D: Simulation Exercise



Appendix E: PowerPoint Module



## Appendix F: Participant Comments

“Consistency and barrier identification with education prior to discharge will be a much-needed relief to help with proper education!”

“Great job with the presentation! Very informative!”

“Helpful to have all the information in one location and to list resources in the community for them to use once they are discharged.”

“Providing a standardized means of education pts with diabetes help them better manage their conditions with less hospitalization.”