Master's Projects and Capstones   Theses, Dissertations, Capstones and Projects

Summer 8-17-2015

Improving Nurse-patient Communication about New Medicines

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NURS 653: Internship: Clinical Nurse Leader

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Summer 2015

University of San Francisco

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Clinical Leadership Theme

This performance improvement project focuses on the Clinical Nurse Leader's domain of Care Environment management. Assuming the CNL role as outcomes manager, I have synthesized and used data, information, and evidence-based knowledge to evaluate and achieve optimal patient outcomes. The global aim of the project is to improve nursing communication with patients and families in order to increase patient satisfaction in terms of safety, quality of care, and patient-centeredness in a medical/surgical unit. The teach-back method has been implemented in order to increase compliance among nurses with regard to explanations of medicines and conversations about side effects.

Statement of the Problem

In a medical-surgical unit of an acute care hospital and trauma center in Oakland, California, the patient satisfaction scores have been found to be lower than average, based on the HCAPHS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey, particularly in terms of nurse-patient communication about medicines. There have also been many complaints from the patients during nurse leader rounding that they do not receive adequate information about new medicines they are taking, including the names, the purposes, and the potential side effects. The project has been implemented to support the nursing staff in providing patient education about new medicines using the evidence-based practice. The purpose of this project is to examine whether the patients understand clearly about their new medication when nurses are using the teach-back method in comparison with the traditional task-centered approach. The

expected positive patient experience is expected to lead to improved patient outcomes, increased patient satisfaction, and reduced Medicare pay-for-performance risk.

Project Overview

The goal of the project is to improve patients' understanding about new medicines they are taking, including the names, the purposes, and the potential side effects.

The objectives of the project are to:

1) increase nurses' compliance with explaining about new medications to the patients during hospitalization.

2) improve nurses' knowledge about how to use to teach-back method for patient education about medicines.

3) increase patient satisfaction resulted from clear communication with nurses about medicines.

4) increase patient safety and outcomes as a result of understanding their medicines' purposes and side effects.

5) reduce Medicare pay-for-performance risk that results from increasing 30-day period readmissions due to inadequate knowledge of medicines' side effects.

The aim of this 12-week project is that, by August 3, 2015, the implementation of the teach-back method will have increased the number of patients who knew about their new medicines during their hospitalizations by 10%. This specific aim is related to the global aim in that the focused efforts on improving communication between nurses and patients will lead to the meaningful gains in improved patient outcomes, increased service reliability, and reduced Medicare pay-for-performance risk.

The pre-surveys about the patients' knowledge about their medicines are administered with 40 patients to assess the relevant problems and evaluate the needs for intervention (See Appendix A, Pre- and Post-Survey Questions). The HCAHPS scores and the information about the evidenced-based methods are shown on the visibility board to create a sense of urgency for the improvement of nurse-patient communication about medicines. The teach-back method is introduced to the nursing staff to help them apply the knowledge in patient teaching about medicines. The 40 post-surveys of patients' experience are administered after each selected case of intervention to measure the effectiveness of the approach.

Rationale

The needs assessment of the project focuses on the outcomes of effective nurse patient communication about medicines that leads to improved overall patient satisfaction. After having explored the gap between the current and the desired outcomes, I have gathered data from the reliable sources. Al-Abri and Al-Balushi (2014) indicate that effective communication and clear explanation had the strongest impact, among other attributes of care, on improving the overall patient satisfaction. Standardized instruments, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys have good reliability and validity. The HCAPHS scores are the meaningful and essential sources of information for identifying the lack of nurse-patient communication about medicines. Currently, patient experience of care is 30% of Medicare Value-based Purchasing incentive payments. One of the HCAPHS questions includes asking about medications and care transitions: "When I left the hospital, I clearly understood the purpose for taking each of my medications" (AHRQ, 2015). According to

the HCAHPS survey results at the medical-surgical unit, the communication about

medicines scores were found to be lower than average (44.1% in March 2015; 40.9% in

April 2015). Therefore, the gap of nurse-patient communication about medicines is

identified (see appendix B: Fishbone diagram).

Furthermore, there have been many complaints from the patients during nurse

leader rounding that they do not receive adequate information about medicines they are

taking and about the new medicines, including the names, the purposes and the potential

side effects. The data were collected from the interviews of 40 inpatients, and the direct

observations regarding how often nurses tell the patients what the medicines are for and

how often nurses describe possible side effects in the way that the patients can

understand. The results were found to corroborate the needs analysis results that only

25% knew the names, 50% knew the purposes, and only 15% knew the side effects of the

medicines.

The project plan has shown the cost-effectiveness when comparing the expenses

with the benefits (see appendix C, Business Case). Upon performing the cost analysis of

the project, the net benefits has indicated that improved quality of patient outcomes can

not only save hospital's costs, but also increase qualitative benefit regarding patient

satisfaction. The saving costs of the project include improved reimbursement as a result

of increased patient satisfaction, increased time efficiency (nursing time) during patient

education, and reduced lengths of hospital stays and readmissions because of

complications from the adverse effects from the medicines. The qualitative benefits

include improved patient autonomy in the form of self-management of medication,

improved patient education reputation of the unit and organization, Improved teamwork and collaboration among nursing staff and multidisciplinary team members, enhanced staff empowerment and education, increased patient and family involvement of care, increased patient trust and confidence in staff, and increased staff awareness of National Patient Safety Goal (See Appendix D: SWOT Analysis).

Methodology

The goal of my project is to examine whether the teach-back method helps to improve patients' understanding about new medicines they are taking during hospitalizations, including the names, the purposes, and the potential side effects. I have applied the evidence-based practice of the teach-back method to improve nurse-patient communication about new medicines. This patient-centered method is known to help encourage nurses and patients to become engaged in medication communication process.

While implementing the change process to reach my project's goal of increasing patients' understanding about new medicines they are taking, I have employed Lewin's model of change as the guideline to analyze, implement, and evaluate the action plan of the project. The there stages of change management in Lewin's theory include:

Stage 1: Unfreezing stage

This stage involves getting to a point of understanding that change is necessary and getting ready to move away from our comfort zones (Connelly, 2015). Motivation is the key to success in this stage. To make a clear goal of the project, I have shown the nursing staff the data for the HCAHPs scores, the patients' pre-surveys about

understanding their medication, and the evidence-based research on how to improve

patient safety and outcomes involving nurse communication about new medicines. I have

compared the advantages and disadvantages of effects the improvement project may have

on the staff and the patients.

Stage 2: Change/transition stage

Change is a process of transition. During this stage nursing staff are moving

towards a new way of explaining a new medication to the patient. The "teach-back"

method is implemented during medication administration. Support is very vital to the key

of success in this stage. I need to empower staff to make the change recognized by on-

going communication about the clear picture of the desired changes and the benefits.

While coaching the staff, I allow them to develop their own solutions as I try to facilitate

the process of change. I have provided a slot next to the communication board for the

nurses to slide a letter 'M' in the slot after explaining about medication using the

'Ask3/Teach3' method. This is a visual reminder for both patients and nurses to engage

in the activities.

Stage 3: Freezing/refreezing stage

This stage is about establishing stability once the changes have been made

(Connelly, 2015). The teach-back method will be accepted and become a new norm of

the nursing unit. It may take time for staff to become comfortable with their routines.

However, I am willing to take on the challenge and reduce the barriers of change process.

With chaotic environment as in the nursing unit, change demands great flexibility.

Sustaining the change will be the challenging process for my project. However, with the

great 'buy in' participants who recognize the importance of the change, the project of

improving nurse communication about medicines will be successful. The key of success is that I need to make alliances by spending time on building and maintaining staff relationships because a shared decision is important to accomplish the outcomes of the change.

I have used the PDSA cycle to guide me in implementing the plan of change and in determining if the change is appropriate (see Appendix E: PDSA cycles). During the implementation, I always ask myself the three questions: what am I trying to accomplish?; how will I know that using the teach-back method for communication about medicines is effective?; and what procedural actions can I take that will result in improvement?

To measure the quality of change and ensure that a positive change takes place, the following procedural steps of improving nurse-patient communication about medicines are taken:

1. **Setting the specific aim**. By August 3, 2015, nurse-patient communication about new medicines will have increased the number of patients who knew about their new medicines during their hospitalizations by 10%.

2. **Establishing the measures**. I have collected the impacting metrics, including the HCAHPS scores on communication with nurses about medicines and the pre- and post-survey about patients' experience in communication with nurses about their medicines' information. According to the HCAHPS survey results, the communication about medicines scores were found to be lower than average (44.1% in March 2015; 40.9% in April 2015). Based on the direct observation

and interviews of 40 patients, only 25% knew medication names, 50% knew the

purpose of the medicine, and only 15 % knew about the side effects. The

regular (virtually daily) audits and patient surveys will be conducted right after

the teach-back method has been implemented to evaluate the effectiveness.

3. **Selecting changes**. I have reviewed the literature regarding the evidence-based

    approach in improving nurse-patient communication, including the creative

    techniques from the experience of others who have successfully improved the

    nurse-patient communication that leads to increased patients' understanding of

    the medicines given to them.

4. **Testing changes**. The visibility board is in place to show the nursing staff the

    HCAHPS scores, the pre-survey scores, the information about the teach-back

    method, and how the "Ask3/Teach3" approach will be further implemented in

    the unit. Nurses are also encouraged to discuss the relevant issues and barriers,

    and shared decisions are made.

5. **Implementing changes**. I have had to refine the change through several PDSA

    cycles. Finally, the entire unit has decided to use the teach-back method during

    morning meds pass. The new medicines are introduced any time and any shift.

    The nurses can find the easy access to the information of the medicines through

    the MAK (Medication Administration Check) during the meds pass. The Ask3

    method includes asking the following questions: what is the name of that

    medicine?; why do you need to take it?; and what are the possible side effects

    of this medicine? The Teach3 method includes asking the patients to complete

    the following: this medication is …; this medication is prescribed for...; and the

potential side effects for this medication are…. After patient teaching, the

nurses write a letter 'M' on the care board communication to remind both

parties about the shared experience. During the last session of the

implementation, I applied the role-play technique to teach the nursing staff

during the huddles. I also provided the sheet information about the common

side effects of medicines to help facilitate the nurses who prefer paper to the

electronic information.

6. **Spreading changes**. After the ongoing implementation, some positive effects

have been found, or at least noticed. The teach-back method of patient

education will be proposed as the norm of the unit. However, change demands

great flexibility, particularly within the busy environment and time constraints,

so I need to maintain staff relationships by facilitating and supporting them in

order to help sustain the change.

Literature Review

In the process of reviewing the literature, I have applied PICO strategy to find the

focus of the problem that supports the purpose of the project of improving nurse-patient

about new medicines. The PICO (Population; Intervention; Comparator; Outcome)

statement is defined as follows: "Adult patients in a medical-surgical unit understand

clearly about their new medication when using the patient-centered approach of 'teach-

back' method compared to the traditional task-centered approach." Using the CINAHL

Complete database, I have found a few articles on patient-centered interventions to

improve medication management. The following articles with dates that range from 2013 to 2015 were found, and all were timely selected for review.

I have found three articles that support the focus on patient-centered approach. The first article, Cleveland Clinic (2013) describes how a multidisciplinary improvement team of nursing, pharmacy, operations and patient experience was formed to develop a process to share best practices about medication communication across a multi-hospital system. The Ask 3/Teach 3 program is designed to encourage patients and caregivers to become engaged in the medication communication process as "partners." The article supports the project's focused intervention on patient-centered approach in which a nurse and a patient engaged in the activity that helps improve patient safety and outcomes.

The second article by McCabe also supports the patient-centered approach when communication with patients. McCabe (2014) argues that nurses can communicate well with patients when they use a patient-centered approach. If the health care management wants to ensure that patients receive quality nursing care, they will need to consider patient-centered communication to be essential to encourage and support nurses to communicate in this manner.

The third article supports the intervention of communication with individualized approach. Kourkouta and Papathanasiou (2014) maintain that good communication between nurses and patients is essential for the successful outcome of individualized nursing care of each patient. To achieve this, however, nurses must understand and help their patients by demonstrating courtesy, kindness and sincerity. Good communication

also is not only based on the physical abilities of nurses, but also on education and

experience.

The advantages of patient satisfaction surveys rely heavily on using standardized,

psychometrically tested data collection approaches. Al-Abri and Al-Balushi (2014)

investigate in-depth a number of research studies that critically discuss the relationship of

dependent and independent influential attributes towards overall patient satisfaction in

addition to its impact on the quality improvement process of healthcare organizations.

This article supports the need for the project to improve patient satisfaction with no

barriers of communication about medicines they are taking.

To sustain the positive change, I have searched for the articles that provide the

ideas to reduce barriers and maintain the effectiveness of communication. Collins (2015)

recommends that discussions with colleagues help to alleviate jargon, and allow barriers

to communication to be viewed and addressed. Effective communication is, therefore,

more than delivering quality, patient-centered care. It is also the vehicle through which

patients' involvement is optimized.

In addition, I have found an innovation from the article of the Covenant Health

(2013). The article recommends a new medication communication practice called "M" in

the box that Covenant nursing staff has adopted as part of patient safety and nursing

excellence communication initiatives. This innovation provides me with the idea of how

to use visual reminder to reinforce the stakeholders to be involved in the activity.

Timeline

The below project timeline is divided into three phases: Phase I, Recognize and Analyze Needs; Phase II: Identify Actions; and Phase III: Implement Change and Evaluate Effectiveness. During phase I (May26-June 8, 2015) the problems are identified based on the data from the HCAHPS criteria on communication with nurse about medicines, the direct observation, and the pre-surveys on patients' interviews. Moving to phase II (June 9-July 6, 2015), the teach-back method is selected and proposed to the nursing staff as an evidence-based intervention in improving nurse-patient communication about medicines. The visibility board is in place and the small meetings are conducted to create a sense of urgency in the medical-surgical unit. Phase III of the project is to implement change and evaluate the effectiveness of the patient-centered approach in communication. The post-survey of patient experience about communication with nurse about medicines are conducted to further identify the barriers and evaluate the effectiveness (Also see Appendix F: Project Timeline).
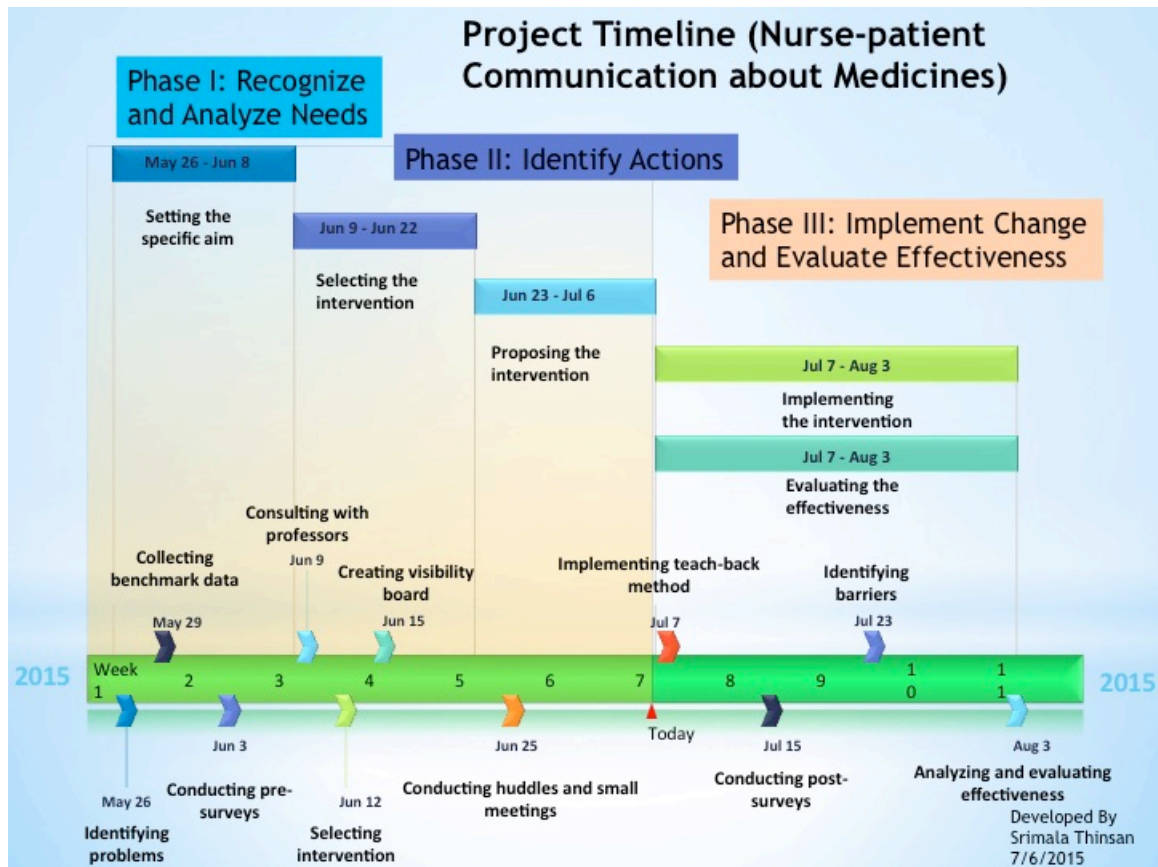
Expected Results

The expected outcomes of effective communication implementation are expected as follows. First, the patient satisfaction scores are increased when the patients understand clearly about new medicines they are taking during hospitalizations, including the names, the purposes, and the potential side effects. Second, the improved patient safety and outcomes are resulted from the improved knowledge of the medicines' purposes and side effects. Third, the nurses increase knowledge in using the teach-back method for patient education about medicines, and thus, they are more compliant in using the patient-centered approach when communicating with the patients. Last, this

performance improvement project is cost-effective because it helps reduce Medicare pay-for-performance risk resulting from reduced length of stays and increased 30-day period readmission due to inadequate knowledge of medicines' side effects.

Newell, Entrep, and Jordan (2015) state that the patient-centered approach is a significant factor in patient satisfaction and complaints about care. Quality of care has been defined by the Institute of Medicine as "care that is safe, effective, timely, efficient, equitable, and patient-centered (Newell et al., 2015). Using the teach-back method intervention, which is a patient-centered approach, can help increase effective communication between both parties, and thus, can improve patient satisfaction and service quality in healthcare professionals.

Nursing Relevance

Nurses have an influential role in increasing patient satisfaction. Al-Abri et al. (2014) found the importance of the nursing role as the most significant determinant of overall patient satisfaction. The patient-centered practice can result in increased recognition of the value and benefits of patient engagement (Newell, et al., 2015). It is essential that nurses know the key components of the communication process and how to improve their communication skills. The project of improving nurse-patient communication about medicines using the patient-centered approach has provided important knowledge of an innovative method of effective communication. Interpersonal communication skills of nurses in terms of their attitude, emotional support, respect for patient preferences, and involving patients in decision making can significantly promote patient safety and outcomes.

Summary Report

This project aimed at improving nursing communication with patients and

families in order to increase patient satisfaction in terms of safety, quality of care, and

patient-centeredness in an acute care setting. The selected patient cohort was in a 42-bed

medical-surgical unit at the trauma center in Oakland, California. The gap of nurse-

patent communication about medicines was identified based on the HCAHPs scores that

had been found to be lower than average (44.1% in March 2015; 40.9% in April 2015).

The visibility board was provided to show the staff the HCAHPS scores, the pre-survey

scores, the information about the teach-back method, and how the "ask3/teach3"

approach could be implemented during medication administration with easy access to the

information about the medicines through the EHR during the medication administration.

The compared results of the 40 surveys from the pre-intervention and post-intervention

revealed the increased number of the patients who knew the names of new medicines

they had been taking from 25% to 75%, knew the purposes from 50% to 90%, and knew

the side effects from 15% to 50%. The teaching materials and strategies included the

flyer about the ask3/teach3 methods, the sheets of common side effects of medications

list, the communication board on the medicine section, and the role-play on ask3/teach3

intervention. Based on this project, it is recommended that, to ensure the effectiveness of

the engagement in medication communication process, sustained efforts in collecting data

and evaluating the effectiveness of the intervention are recommended as an ongoing

process in which staff collaboration is regularly elicited.

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Appendix A

Pre- and Post-Survey Questions for Patients

Question 1: During this hospital stay, were you given any medicine that you had not

taken before?

[   ] Yes   [   ] No

If yes, go to the next question.

Question 2: Before giving you any new medicine, how often did hospital staff tell you the

name of the medicine?

[   ] Never   [   ] Sometimes   [   ] Usually   [   ] Always

Question 3: Before giving you any new medicine, how often did hospital staff tell you

what the medicine was for?

[   ] Never   [   ] Sometimes   [   ] Usually   [   ] Always

Question 4: Before giving you any new medicine, how often did hospital staff describe

side effects in a way you could understand?

[   ] Never   [   ] Sometimes   [   ] Usually   [   ] Always

Question 5: What languages do you mainly speak at home?

Appendix B
Fishbone Diagram

Cause   **Effect**

People

Lack of knowledge

Lack of motivation to change

Lack of collaboration

Large working unit

Nurses turn over

System

Process

Inadequate providing
Information about medicines

Time constraints

Lack of positive patient
experience

Ineffective communication method

Procedure

Lack of engagement in medication communication process
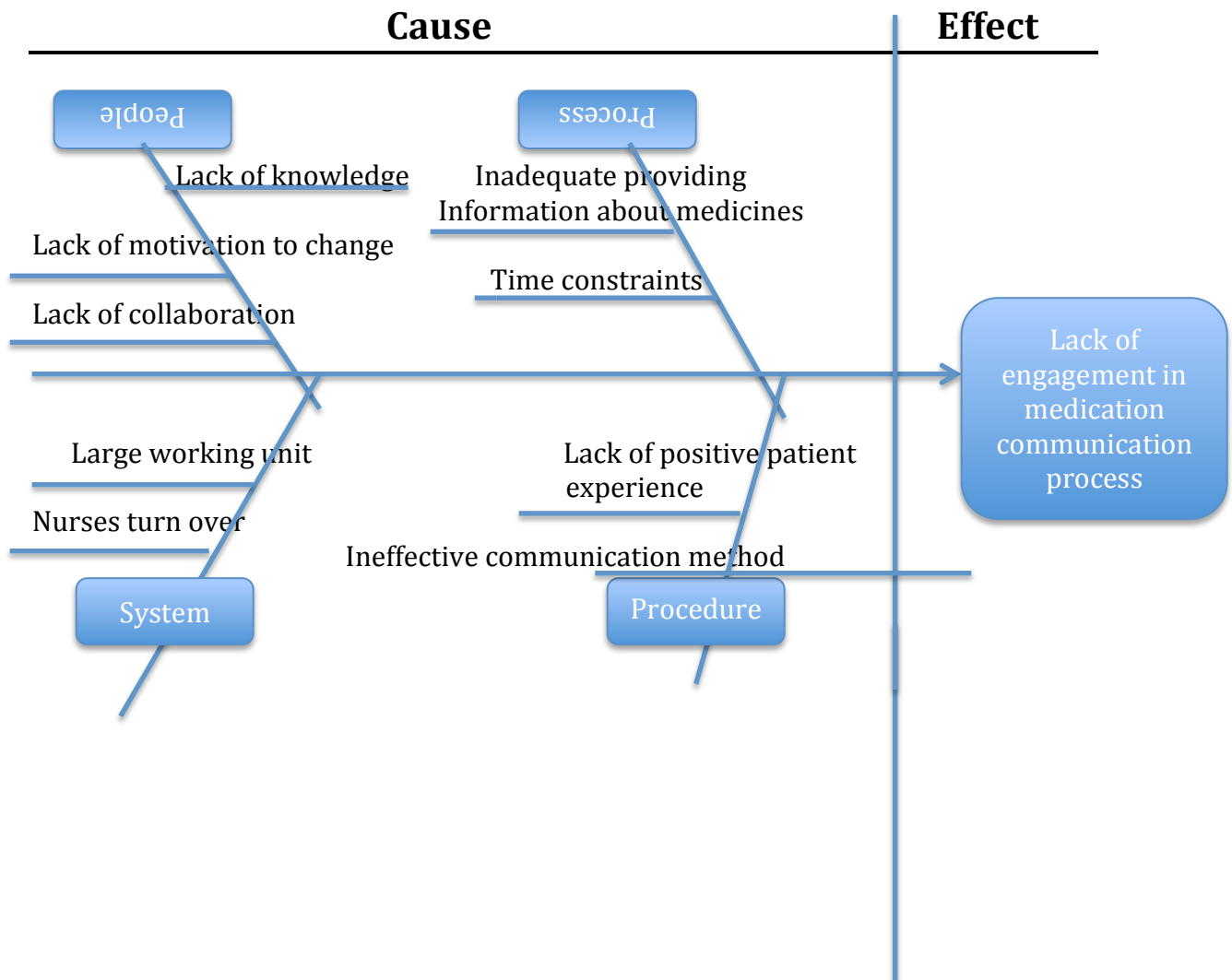
Appendix C

The Outline of Business Case

Step One: Calculate Costs

As a student:

- Time spent researching for evidence supports = 40 hours

- Time spent in clinical setting = 120 hours

- Time spent in consulting with faculty = 5 hours

- Time spent writing reports/paper to present the project = 55 hours

As an employee:

- Indicator: Days in project 84 days

- Performance: Paid non-productive hours 120 hours

- Expenses: Total hourly wages $60 x120 hours = $7,200

  o Other non-personnel expenses (Flyers, printing materials, toner, laminated cards)

  o = $200

- Total expenses = $7,200+$200 = $7,400

Step Two: Calculate Benefits

- Reduced patient complications from increased understanding about medicine

- Improved reimbursement as a result of increased patient satisfaction

- Increased time efficiency (nursing time) during patient education

- Reduced lengths of hospital stay because of improved patient safety and outcomes
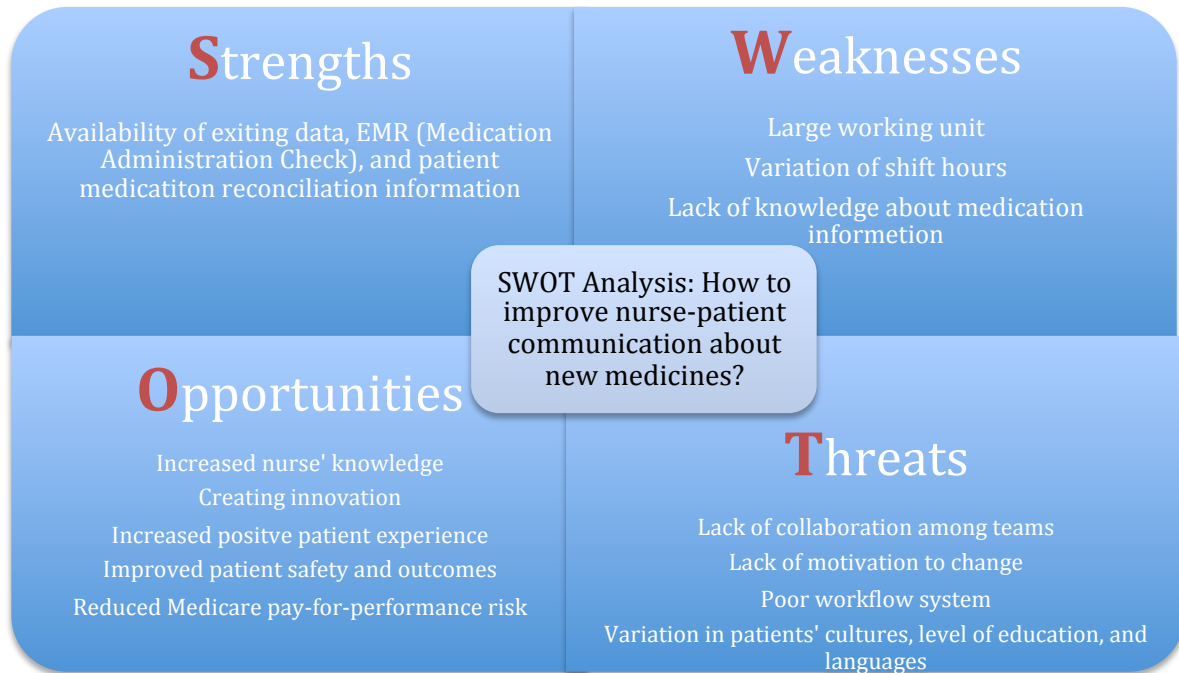
Step Three: Calculate Net Benefit

- Increased reimbursement from CMS

- Estimated cost of adverse effects from inadequate understanding about new

  medicines

- Estimated cost of extended stay due to complications from the medicines

- 1 less day of LOS saves $6,492 in ICU (Beffort et al., 2015)

- 1 less CHF readmission saves $13,000 (Beffort et al., 2015)

- Total estimated net benefit per one incident= $19,492-$7,400 = $12,092

Step 4: Qualitative Benefits

- Decreased LOS, readmits, and fall events due to lack of communication and

  medication issues, and thus, improved quality of life

- Improved HCAHPS and patient satisfaction scores on communication about medicine

- Fewer recorded patient complaints due to inadequate communication

- Improved patient autonomy in the form of self-management of medication

- Improved patient education reputation of the unit and organization

- Improved teamwork and collaboration among nursing staff and multidisciplinary

  team members

- Enhanced staff empowerment and education

- Increased patient and family involvement of care

- Increased patient trust and confidence in staff

- Increased staff awareness of National Patient Safety Goal

Appendix D

SWOT Analysis

Strengths

Availability of exiting data, EMR (Medication Administration Check), and patient medicatiton reconciliation information

Weaknesses

Large working unit

Variation of shift hours

Lack of knowledge about medication informetion

SWOT Analysis: How to improve nurse-patient communication about new medicines?

Opportunities

Increased nurse' knowledge

Creating innovation

Increased positve patient experience

Improved patient safety and outcomes

Reduced Medicare pay-for-performance risk

Threats

Lack of collaboration among teams

Lack of motivation to change

Poor workflow system

Variation in patients' cultures, level of education, and languages
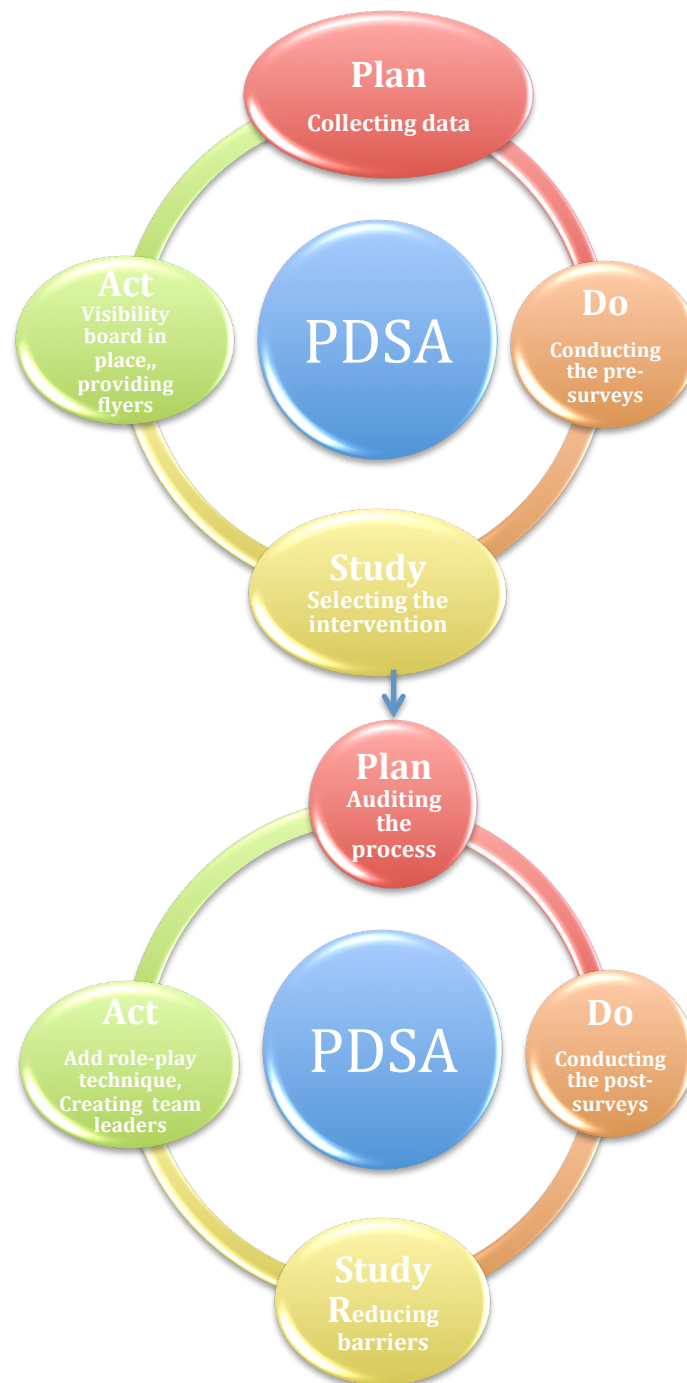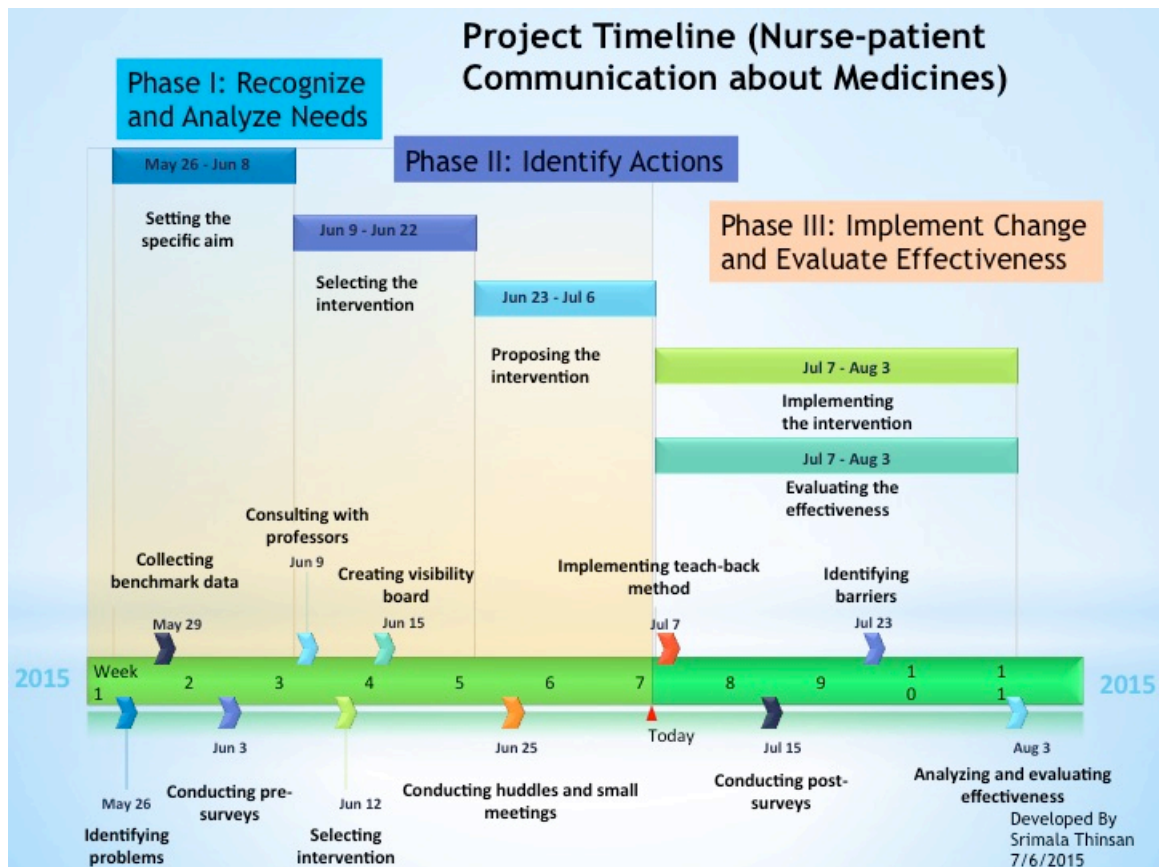
Appendix E

PDSA Cycles

Appendix F

Project Timeline

Appendix G

Results