Improving the Delivery of Discharge Instructions on the Postpartum Unit by Increasing the Nurses' Knowledge

Judy Anne Settles
jasettles@usfca.edu

Follow this and additional works at: https://repository.usfca.edu/capstone

Part of the Health Information Technology Commons, Maternal, Child Health and Neonatal Nursing Commons, Medical Education Commons, Occupational and Environmental Health Nursing Commons, and the Quality Improvement Commons

Recommended Citation
Settles, Judy Anne, "Improving the Delivery of Discharge Instructions on the Postpartum Unit by Increasing the Nurses' Knowledge" (2022). Master's Projects and Capstones. 1394. https://repository.usfca.edu/capstone/1394

This Project/Capstone - Global access is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Projects and Capstones by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.
Improving the Delivery of Discharge Instructions on the Postpartum Unit by
Increasing the Nurses’ Knowledge

Judy Settles, RN, MSN student

Expected graduation: August. 2022

University of San Francisco / School of Nursing and Health Professions

N670-17: Internship

Dr. Serafin-Dickson

July.31, 2022
Abstract

The field of nursing prides itself on two critical functions: safety and patient education. One of the mechanisms for both education and safety is the discharge process. Improvements in the discharge process have been shown to increase patient comprehension and safety. This study is grounded in the (Barach & Johnson, 2006) healthcare organizational framework called the 5 Ps microsystems assessment to explore the impacts and improvements in the discharge instruction process on a postpartum unit in a large organization. It was found that HCAHPS scores regarding discharge instructions were 55-60%, which is below what is considered satisfactory. Utilizing the microsystems assessment, a gap was found in different discharge instruction delivery by staff nurses on the postpartum unit and a lack of knowledge of key elements to meet discharge instructions standard practice and policy. A focus on three of the five Ps: the professionals, the patients, and the processes, led the study of the quality improvement project. Staff nurse surveys revealed that staff nurses needed further education and training to increase competency to follow the organization’s discharge policy. Education was provided to the nurses on what is expected to be explained during discharge instructions to be best practices. Once the nurses received more training and education there was a direct correlation in the improvement of patients’ recall of the discharge instructions. The patients’ recall of discharge instructions improved to 64% after education. This project explored that continued education, standardization of delivery of instructions, and increased accountability will close gaps in nursing staff knowledge, and delivery of discharge instructions, and increase patient comprehension and safety.
Introduction

One of the most difficult tasks is to improve large organizations’ cultures and performance, especially those that deal with patients' health and safety. The concept of a microsystem assessment was introduced to provide a pathway for organizational change management and improvements in patient care. This assessment utilized five critical areas to increase perspective on what is happening in a large organization. The five critical areas are professionals, purpose, process, patients, and patterns. This study focused on three of the five critical areas: the professionals, the process, and the patients in a postpartum unit in a large organization.

This study focused on nursing professionals with a range of nursing skills, years of experience, race/ethnicity, gender, and other intersecting characteristics within the postpartum unit. The patients also included in the study are women who have just given birth with an estimated age range from 19-50. The postpartum unit functions in unison with other areas in the organization to support the delivery of the best patient care after a patient gives birth.

The discharge process is one of the most important processes to ensure patient safety, education, and care. Changes in the discharge process over time have revealed a pattern of inconsistent delivery of patient discharge education and information and safety outcomes. Furthermore, a discontinued practice of continued education opportunities and teaching within the discharge teaching process has resulted in differential outcomes in nurses’ knowledge of the best practices in discharge instructions to patients.

Organizational priorities set by the microsystem align and drive towards its purpose. This is expressed in their medical mission statement, in the postpartum unit at the large northern
California organization, which is to serve the community and provide high-quality services with optimal care & consistent demonstration of our standards of behavior. This mission is accomplished by delivering quality care through actions and service. Equipping professionals with up-to-date evidence-based knowledge to support safety and care is a critical priority in making the purpose and mission a reality.

**Problem Description**

By utilizing the Microsystems assessment framework, clear gaps in the discharge process in the postpartum unit emerged. Some of the gaps existed due to discontinued discharge processes, such as the information booklet that was given at admission to the unit which described for the patients what to expect at discharge and when and why to call healthcare providers. Without this discharge guide booklet, each nurse is left to explain discharge procedures in their own words, potentially omitting important information, and delivering different information to patients. Additionally, a pattern emerged around the lack of continued education on discharge teaching in the unit. Furthermore, it has been several years since the discharge instruction process has been updated or reviewed with staff nurses.

This study is centered on a postpartum unit focused on care for mothers and newborns. The estimated age of the patients ranges from 19-50. The two primary types of delivery procedures are vaginal deliveries and cesarean section deliveries. Patient preparedness for discharge limits medication errors, and patient injury, and improves outcomes (Pollack et.al, 2016).

The discharge process in the microsystem involves two different sets of discharge instructions dependent upon the type of delivery procedure the patient experienced. There are outdated standardized instructions given to patients at admission and instructions placed by the
physician for discharge. The registered nurse has discretion in how they deliver the instructions. Some registered nurses use one delivery of instructions by using outdated information (Mom and Baby book) and others use both, which is the Mom and Baby book and the instructions placed by the physician. There is no uniformity in how discharge instructions are provided. This develops a quality gap causing differences in how the information is delivered. The practice has been shown in patient surveys to be defective and non-useful. The impact on patients and the system can be detrimental to patient safety and well-being. The nurse’s role in improving patients’ understanding at discharge prevents unnecessary treatment and healthcare expenses while improving health outcomes (Newnham, et.al., 2017).

Within the postpartum unit, the patient population is at risk for postpartum hemorrhage and preeclampsia which could lead to poor health outcomes and even death. The quality of education provided at discharge equips the patient with the knowledge to seek the appropriate attention if needed when at home. When patients are readmitted with health problems that were avoidable, the organization is impacted in multiple ways. HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) surveys have shown that 55-60 percent of patients at discharge lack understanding of their discharge instructions. Limitations to my study include the multiple methods used for discharge instructions by the postpartum staff nurses, the timing between recall of instructions for a particular method, and the effects on improved health outcomes.

Available Knowledge

PICO
The PICOT question for this project: How does one-to-one nurse-to-nurse education on discharge instructions, compared to online e-learning modules, improve nurses’ knowledge of the four key elements to be delivered in the discharge instructions within six months?

Search Strategy

To explore this question, a comprehensive search of several databases including USF Gleeson Library, CINAHL, PubMed, Joanne Briggs, Cochrane, and AHRQ Evidence reports was conducted. Narrowing the search for relevant literature during the month and years of January-2015- March. 2021 and utilizing the following keywords were applied; obstetrical nurses, e-learning modules, hypertension in pregnancy, education, and postpartum were applied.

Review of the Literature

Pilieci, et.al. (2017) conducted a randomized controlled trial with the objective of comparing video education to skill demonstration. The hypothesis of this study was to prove that video education is as effective as an in-person demonstration with skill competency and knowledge retention. A group of 129 first-year medical students was split into two groups. A control group (n=70) was given a 90-minute nurse demonstrated skill in pre-existing practice. The experimental group (n=59) was shown a developed video demonstration of the same skill. The participants in this trial were then given a quiz to test their knowledge. The experimental group scored higher in comparison to the control group. (88%+/-1% versus +/-1%; p<0.0001). After the test, each group was given an alternative method for learning. This was followed by a survey given to the participants to gain knowledge of their preferred learning style. Results of the survey showed the medical students on the trial identified benefits of both modes of delivery of education learning. Participants described video demonstrations as more convenient and
accessible. Whereas in-person demonstration provided more retention of knowledge and easier to master competencies.

In a different study, (Redman et. al., 2019) conducted a case-control study of women admitted to the hospital with delayed onset postpartum preeclampsia. This study involved a large group and provided relevant information to connect postpartum preeclampsia as an indication of progressing to chronic hypertension. The evidence rating on the Johns Hopkins Nursing Evidenced Based Practice tool was a Level 1C based on the strength of the evidence and the quality of the evidence. This included women who delivered between January 2014 and June 2018. Women with antenatal diagnoses of preeclampsia and hypertension were exclusive. Risk factors were identified by using a univariate analysis for those with delayed postpartum preeclampsia. A three-month follow-up was conducted among the group and was matched 2:1. A backward stepwise approach was used due to the multivariable and this included covariates. The control group (n=26,936), women with delayed onset postpartum preeclampsia (n=121). Women diagnosed with delayed onset preeclampsia usually presented on day seven with a commonality of a headache. Women in this group also had an association with chronic hypertension.

Hoek, et. al. (2020) conducted a systematic review with meta-analysis on patient discharge instructions in the emergency department on what affects the comprehension of the education. A systematic search of four databases PubMed, EMBASE, Web of Science Google Scholar, and Cochrane before March. 15, 2018, identified 1,842 articles. After screening for quality, fifty-one articles were selected. These articles were then broken into different types of discharge methods. Twelve articles focused on using verbal instructions, thirty articles on using written instructions, and seven used video instructions. Meta-analysis was performed on collected data from 1,460 patients receiving verbal discharge instructions solely: 3,395 patients
receiving written discharge instructions and 459 patients receiving video discharge instructions. Of this data collected patients’ comprehension of discharge instructions averaged 47% for verbal instructions, 58% for written instructions, and 67% for video instructions. The study revealed providing only verbal discharge instructions may be insufficient. Adding other modes of learning both written and video instructions would increase patient comprehension.

The three articles selected had various key elements that will be used in exploring this quality improvement topic in the postpartum unit (see Appendix A). Pileci, et. al. (2017) conducted a randomized control trial which is the type of study that will ground my study and support addressing my PICOT question. My study will focus on increasing the nurses’ knowledge of the delivery of discharge instructions which is the basis of change in practice to be accomplished. Each study had strengths and weaknesses. Redman, et. al. (2019) identified the problem and severity of preeclampsia. The study revealed how the condition can persist post-hospitalization. This article’s relevancy of a postpartum condition that can worsen after discharge exemplifies the need for adequate discharge instructions. Hoek, et. al. (2020) is the most extensive study. A systematic review with meta-analysis revealed the best education style to provide to patients for retention. This information will support the type of instructions that patients preferred and could be adapted into nursing practice

Rationale

Quality in healthcare requires both change management and continuous improvement. Roger’s theory of change model is the framework that will support the health topic identified in the postpartum unit. The five stages involve knowledge (innovation), persuasion (interest), decision, implementation, and confirmation. Roger’s model begins with an awareness (knowledge) of the need for possible change. The nurse’s knowledge is vital when providing care
and should be correct with up to modern practice standards (Mohammadi, et. al, 2018). Additionally, establishing interest in the trials of different methods of education is important. Once the interest is established the trial of the different methods of education can be completed. The method which produces the most knowledge and retention will be introduced as standard practice.

Implementing change from the status quo is not recommended.

Roger’s five stages clearly defined a pathway to the development of the quality improvement project. Mirroring the model, the first stage included an assessment of what needed change and that was identified as the need to increase the nurses’ knowledge of how and what to include when delivering discharge instructions. The progression of stages involved enlisting other staff nurses to become involved in the project and create interest. Then the decision was made on the interventions to create the change which included providing education based on knowledge assessments of the staff nurses and creating measures of patient recall to confirm the success of improvement.

Project Aim

By August. 2022, the nurses in the postpartum unit in the large organization will improve their knowledge of the delivery of discharge instructions to 90%. This study will include addressing the nurses on the postpartum unit learning styles and making improvements in the training process from their vantage point to improve the patients’ recall of discharge instructions and future HCAHPS scores (see Appendix B, Project Charter).

Context

The microsystem assessment that was conducted on the postpartum unit in a large Northern California healthcare organization identified a gap in the education and the way discharge instructions were given to patients. The professionals showed differences in the
delivery of discharge instructions, which could result in different, potentially life-threatening outcomes for patients. The delivery process was delivered in various ways with an omission of key elements as displayed in HCAHPS scores. The response from patients in surveys after discharge supported the lack of understanding.

A SWOT analysis was conducted and the process of discharge in the microsystem had many variations in strengths, weaknesses, opportunities, and threats (see Appendix C). The strengths included knowledgeable staff, supportive management, and available resources. Some weaknesses identified were discharge instruction methods that were obsolete and were still being practiced. In addition, inconsistent, and sometimes non-existent training of staff nurses resulted in decreased standardization of practice. The areas seen as threats were staff apathy which created a pattern in inconsistent practice without implementation of current standards leaving gaps in the process of discharge instructions. Thus, providing opportunities to improve staff knowledge, and become more familiar with evidence-based practices.

The cost-benefit analysis projected/estimated costs are implementation costs associated with the quality improvement project. These included the hourly rate for the clinical nurse leader (CNL) accounting for the hourly time for the study, planning, construction of the QI team, and implementation of the project. Another implementation cost is the hourly rate for two staff nurses with the roles of nurse educators, involved in the QI team, and conducting staff training. Lastly, further costs were staff nurse education hours to receive training and paper goods/materials needed for informational handouts. These total implementation costs amount to $19,235. The added revenue to the organization would include an estimated gain of one patient monthly due to the improvement of patient satisfaction scores from the project. This added revenue amounts to $60,000 annually. The implementation costs measured with the added
revenue would result in potential added revenue of $40,765 annually to the healthcare organization (see Appendix D).

The implementation of this project would improve the discharge instruction process by equipping the staff nurses with current practices and expectations. Not only would patient outcomes improve by standardization of practice, with relevant training and education, but the return on investment to the large organization has financial benefits.

**Intervention**

The communication plan included a brief meeting with the staff nurses in the postpartum unit, with an explanation of the project and objectives, and a three–six-month timeline (see Appendix E).

The intervention included identifying the gaps in the way the delivery of discharge instructions was completed. The nurses on the unit verbalized that there are various ways they deliver discharge instructions. There was a pre-project survey distributed to the nursing staff to identify those processes and if the four key elements of discharge were explained to the patients. The survey had seven open-ended questions about delivery instructions (see Appendix F). The four key elements to be explained when providing discharge instructions are (1) Safe sleep practices, (2) Breastfeeding and community resources, (3) Instructions on when to call the MD, and (4) The kind of help you will need once you get home. These four key elements apply to the couplet (mother and baby). After the pre-project surveys, the information collected from the surveys provided the knowledge needs assessment for developing education to address those needs. For the three weeks following, the four key elements were reviewed with the staff nurses during daily huddles and provided in handouts in the breakroom.
One of the last steps in the intervention process was conducting rounds on patients by the charge and resource nurse to assess the patient’s recall of the four key elements. The team which included two staff nurses, the charge nurse, and the project lead who were working on the project met biweekly to collect and review/analyze the data. This data was the information collected during rounds by the charge and resource nurse which was the number of key elements that the patient recalled. The charge nurse and resource nurse worked in conjunction with nurses on their rounds with patients on the day of discharge to assess the patient recall of the four key elements that should be delivered during discharge instructions. A post-survey was given to the staff nurses to measure the rate of improvement in nurses’ knowledge.

**Study of the Intervention**

There were 44 staff nurses’ surveys collected prior to the staff nurse education, and the response to the delivery method of providing discharge instructions revealed that 39 provide a combination of written and verbal instructions, four provided written only, and zero offer verbal only. The survey also presented information on the staff nurses’ knowledge base. The surveys revealed that 20 knew all four key elements to be delivered with discharge instructions, 17 knew two of the four key elements except for breastfeeding resources, and the kind of help you will need when at home, and five knew two of the four key elements except for safe sleep practices and the kind of help you will need when you get home. Based on the analysis of the data and the findings the nursing staff was provided with the results and given education on the key elements to deliver in discharge instructions along with areas of policy to review where needed. Both the postpartum nurses and the leadership of the organization chose to utilize the recommended education of reviewing the four key elements at huddles for discharge instruction processes.

**Measures**
There were three methods of measurement that were used for this project. The first included the knowledge assessment of the staff nurses before and after the education had been provided. The staff nurses on the postpartum unit were asked if their knowledge had increased on the four key elements to be delivered during discharge instructions and what were their barriers to learning. The second method of measurement was conducted by the charge/resource nurse via rounds on patients and asked questions regarding what information they have received about discharge. There were four important key factors the patients should recall, (1) safe sleep information, (2) what to expect when breastfeeding and breastfeeding resources, (3) the kind of help they will need when they get home, as well as (4) when to contact a healthcare provider. Patient comprehension of all discharge information was assessed as well. The patient rounds were completed in lieu of timing for HCAHPS results. The third method of measurement was the long-term results of increased HCAHPS scores.

**Ethical Considerations**

The project has been approved by the University of San Francisco School of Nursing and Health Professions Master of Science in Nursing. It is designated as a quality improvement project in the microsystem. There is no conflict of interest amongst the staff. The project does not require Institutional Review Board (IRB) review (see Appendix G).

Initiating quality improvement in the microsystem is very beneficial, however, there must be aware of how it impacts patient care. This begins with looking at ethical variants such as dignity, harm, justice, and respect. (Hunt et.al., 2021). With the development of this project in the postpartum unit, there was attention placed on autonomy, beneficence, justice, and non-maleficence staying aligned with the American Nurses Association (ANA) code of ethics. (Gaines, 2021). The participants which are the staff nurses and postpartum patients were
informed of the study. The information about the study was displayed on the unit in common dwellings and on the education board which prevented exclusivity and increased transparency. The patients on the unit were volunteers and had complete autonomy to answer the questions without interference and the data was collected for organizational data and study only. Jesuit values were incorporated into what guided the leadership and the team throughout this project. This project aimed to meet the Jesuit value of forming & educating agents of change (Rickards & Kealey, 2020).

**Outcome Measure Results**

The results from 50 staff nurses’ post-surveys revealed that 50 nurses stated an improvement in their knowledge of the four key elements to be delivered in discharge instructions. This was an outcome measure result of 100%, exceeding the target goal of 90% of staff nurses to improve their knowledge of discharge instructions.

There was a total of 165 patients asked for a recall of the four key elements; 105 patients could recall all four (64%), 53 could recall two key elements except for the breastfeeding education/resources and the kind of help you will need when you get home. These results were expected. These two key elements were identified in the pre-survey given to the staff nurses as the key areas least communicated to patients. These two key elements were also identified as not being communicated from previous HCAHPS scores.

**Summary**

The assessment of the discharge process in the postpartum unit and the way discharge instructions were carried out were not standardized. The surveys showed staff nurses were using different teaching tools including one that was outdated and was unaware of all the key elements to communicate when giving the discharge instructions. Once these findings were assessed, the
implementation of education and training for the staff nurses on the unit were provided. There was an improvement in the staff nurses’ knowledge to 100%, and was reflected in 64% of patients recall of the four key elements and the staff nurses’ responses to the post-survey feedback.

There is a changing climate in the postpartum unit which is seen in a renewed inclination for knowledge and competency. This response to the quality improvement project has shown that small implementations can create a large impact reaching further than the intended goal.

**Conclusions**

This quality improvement project will be useful in the postpartum unit and can be modifiable if needed. Its usefulness will be sustained due to the low benefit-cost analysis and lower post-discharge risks to the patients. Notwithstanding, the intangible benefits for patient safety and patient satisfaction greatly outweigh the other benefits. The potential for replicating this study for process improvement could be a model for other units in the organization and postpartum units in other facilities. The discharge instruction process has demonstrated success and deserves consistent updates in training. The implications for practice would improve the postpartum staff nurses’ knowledge which will improve the delivery of discharge instructions. This practice will improve patient knowledge resulting in decreased readmission rates, increased safety and care, and patient satisfaction.
References


Hunt, D., Dunn, M., Harrison, G., & Bailey, J. (2021) Ethical considerations in quality improvement: key questions and a practical guide. https://bmjopenquality.bmj.com/content/10/3/e001497


Associated factors, and blood pressure profile of delayed-onset postpartum preeclampsia 

Rickards, L. & Kealey, S. (2020) The system of scholarly communication through the lens of 
Jesuit values. *Journal of Moral Theology. (Special Issue 2), 117-142.*

### Appendix A

#### Evaluation Table

<table>
<thead>
<tr>
<th>Citation</th>
<th>Conceptual Framework</th>
<th>Design/ Method</th>
<th>Sample/ Setting</th>
<th>Variables Studied and Their Definitions</th>
<th>Measurement</th>
<th>Data Analysis</th>
<th>Findings</th>
<th>Appraisal: Worth to Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoek et al., 2020</td>
<td>Not applicable</td>
<td><strong>Design:</strong> Systematic Review with meta-analysis</td>
<td><strong>Sample:</strong> systematic search in PubMed, EMBASE, Web of Science Google Scholar, and Cochrane Databases (1,842 articles, 51 met the inclusion and exclusion criteria) Included RCTs, retrospective and prospective cohort studies, cross-sectional studies, and time-series studies published before March 15, 2018. <strong>Setting:</strong> Not applicable</td>
<td><strong>Independent Variables:</strong> D/C instructions (standard care) <strong>Dependent Variables:</strong> Verbal instructions, Written instructions, Video/telephone instructions</td>
<td>Meta-analysis was performed on data of 1,460 patients who received verbal information only, 3,395 patients who received written information, and 459 patients who received video information</td>
<td>Forest plot of pooled correct recall rates of verbal d/c instructions Video d/c instructions= 50.1% and high across those on verbal and written d/c instructions (95.6%; written 97.7%)</td>
<td>Verbal d/c instructions showed that correct recall could be as low as 8% in patient populations. Adding written instructions could improve recall from 47% to 58% on average. No significant impact on adding video to written instructions but helped slightly. Other factors can impact understanding: emotional state during education, preexisting health status, and amount of information.</td>
<td>JHNEBP Critical Appraisal Tool Rating: Level III A <strong>Strengths:</strong> Not discussed <strong>Limitations:</strong> Studies hard to compare because of variance in methods of d/c instructions and patient populations. The quality of studies varied. The review did not include whether correct recall influences patients’ symptoms, recovery, or both. The effect of verbal d/c instructions might influence the other manners of d/c instructions <strong>Worth Practice:</strong> Training of providers of d/c instructions on communication with the teach-back method might improve recall.</td>
</tr>
</tbody>
</table>

**Keywords:** search terms listed online at http://www.annemerged.com
Adding video or written information to D/C instructions may improve patient recall.

<table>
<thead>
<tr>
<th>Citation</th>
<th>Conceptual Framework</th>
<th>Design/Method</th>
<th>Sample/Setting</th>
<th>Variables Studied and Their Definitions</th>
<th>Measurement</th>
<th>Data Analysis</th>
<th>Findings</th>
<th>Appraisal: Worth to Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pileci et al., 2017</td>
<td>Not applicable</td>
<td>Design: A Randomized Controlled Trial</td>
<td>Sample: A randomized control trial was conducted with a group of first-year medical students (n=129). This group was consented to and randomly divided into two groups (control group=70) who attended a nurse-led skill demonstration. (experimental group; n = 59) watched a video series</td>
<td>Independent variables: nurse-led skill demonstration. Dependent variables: Video instruction</td>
<td>A trial was conducted on 129 medical students. 70 students were given nurse-led instruction. 59 students watched video instruction.</td>
<td>Participants completed a 30-item multiple-choice quiz. Each group was given alternate instruction and a survey to provide a preferred instructional method.</td>
<td>The experimental group scored higher on the quiz (n =63). 88%. The medical students preferred the videos for convenience and accessibility. The medical students preferred the skill demonstration for retention and complete tasks easily.</td>
<td>JHNEBP Critical Appraisal Tool Rating:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Method: A design was created to determine if video demonstration is as effective as in-person skill demonstration.</td>
<td>Published 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strengths: Consideration was taken in preferred learning style in comparison to test results only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keywords: sterile surgical technique, surgical education, video education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Limitations: Control group is small. Each group was given the same instruction was there a true determination between the type of instruction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Worth to practice: Video demonstration can be a tool in</td>
</tr>
<tr>
<td>Citation</td>
<td>Conceptual Framework</td>
<td>Design/Method</td>
<td>Sample/Setting</td>
<td>Variables Studied and Their Definitions</td>
<td>Measurement</td>
<td>Data Analysis</td>
<td>Findings</td>
<td>Appraisal: Worth to Practice</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Redman et al., 2019</td>
<td>Not applicable</td>
<td>Case-control study</td>
<td>Women who delivered between January 2014 and June 2018. This group developed a new diagnosis of preeclampsia within 48 hrs to 6 weeks after delivery and were admitted to the hospital. Multivariable logistic regression was performed, Covariates were included.</td>
<td>Independent variables Women admitted postpartum with newly diagnosed preeclampsia. Dependent variable Including antihypertensives.</td>
<td>Control group consisted of (n=26,936)</td>
<td></td>
<td>Preeclampsia diagnosed postpartum has many variables with onset and treatment. The delayed onset of preeclampsia may be a precursor to chronic hypertension.</td>
<td>JHNEBP Critical Appraisal Tool Rating:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Strengths:</strong> Large control group. A study was conducted over multiple years. Multiple variables were studied.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Limitations:</strong> Inconclusive on the correlation of cause of delayed onset.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Worth Practice:</strong> Findings could suggest continuing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>monitoring for the possible onset of Hypertension.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

**Project Charter:** To improve the delivery of discharge instructions on the postpartum unit by increasing the nurses’ knowledge.

**Global Aim:** To assess the nurses preferred learning methods to improve comprehension of pertinent information to be delivered at discharge. This will increase the nurse’s knowledge base and create standardized practice on the postpartum unit.

**Specific Aim:** To improve 90% of staff nurses on the postpartum unit delivery of discharge instructions reflecting in the patient’s recall and increase HCAHP scores.

**Background information/Rationale:** The discharge process is broken allowing for gaps. The previous process for discharging patients no longer exists. There used to be an information booklet that was given at admission to the unit which had what to expect at discharge and when and why to call your providers. Each nurse would follow this template and explain in their own words. This could lead to information being delivered differently and comprehension needs unaddressed. There is lack of continued education on discharge teaching on the unit. Until recently it had been several years since the process has been reviewed with staff.

The impact on patients and the system can be detrimental to safety and wellbeing. The patient population in the microsystem is at risk for postpartum hemorrhage and preeclampsia which could lead to poor health outcomes. The quality of education provided at discharge equips the patient with the knowledge to seek the appropriate attention if needed when at home, this affects the system when patients are readmitted with health problems that are avoidable. HCAHP surveys have shown a high percentage of patients at discharge lack understanding of their discharge instructions. Disparities in certain patient cohorts have been shown also. The nurse’s role in improving patients’ understanding at discharge prevents unnecessary treatment and healthcare expenses while improving health outcomes. (Newnham et. al, 2017).

**Sponsors:**
- Nursing director
- Department nursing manager
- Assistant department nursing manager

**Goals for the project:**
1. Improve the delivery of discharge instructions.
2. Standardize nursing practice when delivering discharge instructions.
3. Increase nurses’ knowledge on the postpartum unit by following evidenced based practice when delivering discharge instructions.
4. Improve patients’ comprehension of discharge instructions.

**Measures:**
Measurable outcomes will be evidenced by completion of staff nurses’ surveys on desired learning preference. Patient comprehension will increase 80% from HCAHP scores by August 2022. The discharge process will be near standardized.

**Team members:**
- Nakia Wallace- Assistant Nurse Manager (preceptor)
- Arisa Niranakul- Staff nurse
- Sanja Malkic- Staff nurse
### Appendix C

**SWOT Analysis**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Skilled knowledgeable staff</td>
<td>o Too complex</td>
</tr>
<tr>
<td>o Improves standardized practice</td>
<td>o Requires cohesive team and team involvement</td>
</tr>
<tr>
<td>o Management Involvement</td>
<td>o Large group</td>
</tr>
<tr>
<td>o Available resources</td>
<td>o Wanting to remain status quo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Improve staff knowledge</td>
<td>o Staff apathy</td>
</tr>
<tr>
<td>o Improve reputation</td>
<td>o Time goal</td>
</tr>
<tr>
<td>o Competitive with other organizations</td>
<td></td>
</tr>
<tr>
<td>o Become more familiar with evidence-based practices</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix D

### Improving the Delivery of Postpartum Discharge Instructions by Increasing the Nurses' Knowledge

<table>
<thead>
<tr>
<th>Implementation costs</th>
<th>hours</th>
<th>salary</th>
<th>total</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Educators</td>
<td>16</td>
<td>$97.50</td>
<td>$1,560.00</td>
<td>$75 /hr.</td>
</tr>
<tr>
<td>Nurse education</td>
<td>70</td>
<td>$97.50</td>
<td>$6,825.00</td>
<td>88 staff</td>
</tr>
<tr>
<td>(benefitted staff)</td>
<td></td>
<td></td>
<td></td>
<td>nurses X 1 hour</td>
</tr>
<tr>
<td>Nurse education</td>
<td>18</td>
<td>$75.00</td>
<td>$1,350.00</td>
<td></td>
</tr>
<tr>
<td>(non-benefitted staff)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper goods/materials</td>
<td></td>
<td></td>
<td>$500.00</td>
<td></td>
</tr>
<tr>
<td>CNL project lead</td>
<td>100</td>
<td>$90.00</td>
<td>$9,000.00</td>
<td>non-</td>
</tr>
<tr>
<td>costs</td>
<td></td>
<td></td>
<td></td>
<td>benefitted</td>
</tr>
<tr>
<td><strong>Total implementation costs</strong></td>
<td></td>
<td></td>
<td><strong>$19,235</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Added revenue

<table>
<thead>
<tr>
<th>Added revenue</th>
<th>mont</th>
<th>hly</th>
<th># patients</th>
<th># patients</th>
<th>added revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>One extra patient per month</td>
<td>$5,000.00</td>
<td>1</td>
<td>$500,000</td>
<td>2</td>
<td>$60,000</td>
</tr>
<tr>
<td>Potential Added Revenue /year</td>
<td>$60,000.00</td>
<td>$19,235</td>
<td>$40,765</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Gantt Chart
Appendix F

Postpartum Staff Nurse Discharge Instructions Assessment

Instructions: Check the box(es) that best describe your answer to the question.

1. In which way(s) do you deliver discharge instructions?
   
   Verbal___
   
   Written___
   
   Combination (Verbal & Written) ____
   
   Other (Specify) ______

2. Why do you deliver discharge instructions in the way you answered question # 1?
   
   ___________________________________________________________________________

3. Of the following list, which written discharge instructions do you use?
   
   Mom & Baby book_______
   
   Physician’s instructions ______
   
   Epic ____
   
   Other (Specify) ______

4. Select as many of the four key elements that you include when giving discharge instructions for postpartum mothers?
   
   Safe sleep practices_____
   
   Breastfeeding and community resources _____
   
   Instructions on when to call the MD_____
   
   The kind of help the mother needs once at home_____ 

5. Select as many of the four key elements that you deliver when giving instructions for the newborn?


Safe sleep practices ____

Breastfeeding and community resources ____

Instructions on when to call the MD ____

The kind of help needed when at home ______

6. What are the barriers to providing all four key elements during discharge instructions?

__________________________________________________________________

____

7. What resources or training do you need to ensure that you understand how to deliver the
   four key elements during the delivery of discharge instructions?

__________________________________________________________________

____

*This assessment will be used for educational purposes only. Anonymity will be kept, and findings will not affect job retention.
Appendix G

CNL Project: Statement of Non-Research Determination Form

Student Name: Judy Settles

Title of Project: Improving the Delivery of Postpartum Discharge Instructions by Increasing the Nurses’ Knowledge

Brief Description of Project: The nurses on the postpartum unit in the large Northern California community hospital will improve four key aspects in their delivery of discharge instructions.

A) Aim Statement: By August 2022, to improve 90% of staff nurses’ knowledge of patient discharge instructions on the postpartum unit in a large Northern California community hospital.

B) Description of Intervention: Identify nurses learning styles and create standardized discharge instructions based on the four key elements. The four key elements are the
following: (a) Safe sleep practices for newborns (b) breastfeeding (hand expression, what to expect, and community resources handout) (c) when to call the doctor for the mother and the newborn (d) “This is the kind of help you will need when you get home”. Then educate the nursing staff on these instructions.

C) How will this intervention change practice? This intervention will improve practice by improving nurses’ knowledge when delivering discharge instructions and care delivery. Long term improvement will increase patients’ comprehension and satisfaction.

D) Outcome measurements: Nurses’ pre-and-post knowledge surveys. Patients recall of discharge instructions including the four key elements of safe sleep practices, breastfeeding, and community resources, when to call the doctor, and this is the kind of help you will need when you get home. A long-term measurement will be improvement of HCAHP scores by 20%.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

☐ This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.
This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

**EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST ***

Instructions: Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>ES</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and <em>is a part of usual care</em>. ALL participants will receive standard of care.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is <strong>NOT</strong> designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does <strong>NOT</strong> follow a protocol that overrides clinical decision-making.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does <strong>NOT</strong> develop paradigms or untested methods or new untested standards.</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does **NOT** seek to test an intervention that is beyond current science and experience.

The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.

The project has **NO** funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.

The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., **not** a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.

If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”

**ANSWER KEY:** If the answer to **ALL** of these items is **yes**, the project can be considered an Evidence-based activity that does **NOT** meet the definition of research. **IRB review is not required.**

**Keep a copy of this checklist in your files.** If the answer to **ANY** of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.*
STUDENT NAME (Please print):
_______________________________ Judy Settles
________________________________________
Signature of Student: _______Judy Settles

______________________________________________ DATE ___April 22, 2022_______

SUPERVISING FACULTY MEMBER NAME (Please print): Francine Serafin-Dickson

Signature of Supervising Faculty Member DATE __6-8-22