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Increasing Patient Satisfaction of Post-Cesarean Mothers: An Evidence-Based Practice Quality Improvement Project

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This is to certify that the DNP Project Final Report by

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Abstract

Introduction: The first hour after delivery, referred to as the “Golden Hour” or “Sacred Hour,” is when the mom, baby, and the support person get 1-hour of uninterrupted bonding time together. This time is critical because it promotes neonatal thermoregulation, decreases newborn stress levels, improves mother–newborn attachment, and encourages breastfeeding. Unfortunately, most cesarean births do not receive the Golden Hour and instead experience delayed bonding time.

Purpose: The purpose of this Evidence-Based Practice (EBP) project was to incorporate the Golden Hour for post-cesarean section mothers in a mid-sized community-based hospital in XXX, CT in order to increase patient satisfaction post-c-section; recover the mother-infant dyad in the same location, and decrease the delay time of the mother-infant initiation of bonding.

Intervention/Setting: The IOWA model of EBP implementation and the Institute for Healthcare Improvement (IHI) Model for Improvement involving the Plan-Do-Study-Act (PDSA) tool was utilized to guide the implementation of the Golden Hour. Post-cesarean section mothers within 24 hours post-delivery were offered a patient satisfaction survey. The labor and delivery nurses at the Family Birthing Unit at XXX Hospital utilized a nurse checklist to track the initiation time of the Golden Hour including the location of the mother-infant dyad. Data was collected over 13 weeks, during which 338 births occurred, with 118 being via cesarean section.

Evaluation: Patient satisfaction surveys were obtained from 65 (55%) of these cesarean sections. Of those, 56 (87.7%) reported increased satisfaction and bonding time with their newborn, with 8 (12.3%) reporting they did not receive the Golden Hour bonding time and were not fully satisfied with their recovery. 37 mother-newborn dyads received the Golden Hour with initiation between 0-90 minutes post-delivery.

Discussion: The Golden Hour was implemented for 52 cesarean section mothers, of which 100% reported satisfaction with the experience. Overwhelmingly positive patient satisfaction surveys of those who reported a positive bonding experience and the data presented throughout this project led to a departmental shift in practice protocol towards evidence-based practice standards for the post-c-section mother-newborn dyad.

Keywords: Golden Hour, cesarean section, maternal-newborn, infant bonding, client satisfaction

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Increasing Patient Satisfaction of Post-Cesarean Mothers: An Evidence-based Practice Quality Improvement Project

Phase 1

Problem Identification, Development of Clinical Question, and Evidence Review

The first hour after delivery, referred to as the "Golden Hour" or "Sacred Hour," is when the mom, baby, and the support person get 1-hour of uninterrupted bonding time together. The Golden Hour is especially critical because it promotes neonatal thermoregulation, decreases newborn stress levels, improves mother–newborn attachment, and encourages breastfeeding (Neczypor & Holley, 2017). However, in many cases is interrupted or absent for post-cesarean section mothers. This EBP project aims to implement prompt bonding of the mother-newborn dyad specifically for post-cesarean section births by having the baby and mother recover in the same room, thus decreasing the time they are separated. The project was conducted at XXX Hospital's Family Birthing Center (FBC), which has served the Greater XXX community for over 125 years. XXX Hospital's FBC delivers more than 1,000 babies each year, including vaginal and c-section deliveries combined.

Problem Identification & Evidence Review

Unfortunately, the mother-newborn dyad does not always experience the Golden Hour for post-cesarean section deliveries. Often, the dyad does not get reunited with their newborn for more than an hour after delivery. This project aims to standardize the implementation of prompt bonding of mother and baby post-cesarean section in XXX Hospital's FBC by having the baby and mother recover in the same location to experience the "Golden Hour."

By combining the mother and newborn in the same room post-delivery, preservation of the initial bonding needed to promote the mother-newborn connection can be completed. This immediate

bonding post-delivery regulates newborn temperature, breathing, and blood sugars and reduces post-partum depression (Abdollahpour et al., 2019).

Furthermore, client satisfaction from the mother and family increases based on a positive experience from their hospital stay. The Golden Hour is also recommended as a preventive approach to reduce postnatal depression in women, especially after a traumatic childbirth experience (Abdollahpour et al., 2019). Additionally, this "sacred" time helps optimize the baby's structural and functional brain development (Abdollahpour et al.,2019). Separation of the newborn from the mother at birth, even for a short period, has detrimental effects, including negative physiologic results such as increased stress and poor latch needed for breastfeeding (Karimi et al., 2020).

Description of Local Problem

XXX Hospital's Family Birthing Center (FBC) supports the Golden Hour; however, the current policies at the FBC do not always preserve this uninterpreted time for mothers who deliver via cesarean sections. The current difficulty at FBC is that with cesarean births, the mother is moved to a recovery area in a separate location from her infant, causing a complete separation for the entire 1-hour recovery period. The newborn is then brought back to the mother post-assessment. Reported factors for this disruption of the Golden Hour currently at the FBC include inadequate nurse staffing, no direct role or assignment for the delivery baby at c-section deliveries, and therefore requiring special care nursery (SCN) nurses to assess these infants.

Focused Search Question

A comprehensive search of the literature was conducted to ensure that XXX Hospital's FBC is providing best practices for post-cesarean women and including the Golden Hour for newborn bonding. The following clinical question led to this guided review: In the woman-

newborn dyad post-cesarean section (P), how does prompt initiation of "The Golden Hour" (I) compared to not initiating "The Golden Hour" (C) affect overall patient (client) satisfaction (O)?

External Evidence

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) recommends that all stable infants greater than 37 weeks and 0 days gestation born by vaginal or cesarean birth be placed in immediate skin-to-skin contact for at least the first hour of life or until the first breastfeeding is completed (2016). According to John Hopkins Medicine Birthing Center, all patients are ensured mother/baby couplet care, including uninterrupted skin-to-skin contact with the mother for the first hour of life (2021). Complete mother-baby couplet care without separation has been a significant change in care at John Hopkins.

Their success with mother-baby bonding and breastfeeding is recognized by the Baby-Friendly Hospital Initiative (BFHI). The BFHI is a global program launched by the World Health Organization and the United Nations Children's Fund in 1991 (John Hopkins Medicine, 2021). This recognition is for hospitals and birthing centers that offer optimal care for infant feeding and mother-newborn bonding.

Skin-to-skin contact between the mother and baby immediately after delivery and throughout the hospital stay is enforced by keeping the infant and mother in the same room at all times, including post-c-section. BFHI medical centers always incorporate prompt, uninterrupted skin-to-skin, which is highly encouraged after delivery as part of their maternity service plan (John Hopkins Medicine, 2021). Hospitals and birthing centers strive for the BFJI designation but must incorporate immediate skin-to-skin contact (the Golden Hour) as part of their policies and procedures.

Internal Evidence

The FBC unit at XXX Hospital currently recovers post-c-section mothers and their newborns in two separate locations. The mother is in her post-partum room during her recovery period, whereas the newborn goes to the special care nursery for designated nurses to conduct the newborn assessment. This practice delays bonding time between the patient and her newborn and interferes with the Golden Hour. This practice is not evidence-based or considered best practice. However, this practice is currently the FBC protocol due to constrained staffing and not enough nursery nurses to be present at c-section births. Additionally, the FBC does not now focus on client satisfaction specifically for post-c-section mothers, nor do they focus on postoperative bonding experience for these patients. A practice and system change at FBC change is needed to meet best practices and focus on client satisfaction post-delivery.

Evidence Synthesis

A search was conducted utilizing the following databases: CINAHL Complete and MEDLINE. Keywords used and Boolean operators for the search were: “Golden Hour after birth,” “golden hour,” “Golden Hour” AND “bonding,” “mother-baby bonding,” “mother-newborn bonding,” “mother and baby in hospital” AND “bonding,” “skin-to-skin after birth” AND “patient satisfaction,” “cesarean section” AND “bonding” or “attachment” or “relationship.” See Appendix A and Appendix B. Limitation parameters were set to narrow the literature search. These limitations included only peer-reviewed literature, academic journals, gender-female births, and articles published between 2015 to 2020.

Recommendations Based on the Evidence

The literature was reviewed and synthesized to include evidence-based recommendations. Evidence-based recommendations from a review of levels of evidence included six studies identified as levels 2, 5, 6, and 7. See Appendix C.

The Golden Hour also referred to as maternal attachment, included bonding, skin-to-skin, and breastfeeding as interventions to increase patient satisfaction and newborn adaptation. Each article had its unique incorporation of improving maternal bonding through direct skin-to-skin contact. The Golden Hour in post-c-section mothers is strongly recommended based on the available evidence for best practice. See Appendix D. A literature review and appraisal summary can be found in Appendix E.

Phase 2

Project Planning

This project was conducted at XXX Hospital's Family Birthing Center in XXX, Connecticut. XXX Hospital is located in XXX, Connecticut, and it is a private, non-profit acute-care teaching hospital that has three hundred and sixty-seven beds. XXX Hospital is part of XXX and is also referred to as XXX. The FBC unit consists of a twenty-three-bed unit which all are private rooms. Of those twenty- three rooms, nine are dedicated to laboring mothers.

Key Stakeholders

Stakeholder support included FBC nursing staff, the department educator, project oversight by Faculty Project Advisor, Dr.XXX, and practice mentor, Dr.XXX. Permissions were obtained from the FBC department manager, XXX, MSN, RN, and the clinical operations manager, XXX, BSN, RN.

The other key stakeholders to this project are the labor and delivery nurses who are participating in the project. Periodically through the implementation, management will send notifications via email to recognize team success, thus allowing team leaders to recognize their team members as an integral part of the project. This also helps staff focus on achieving the goal

of a sustained practice change and maintains their momentum related to practice change (Cullen et al., 2018).

Project Goals

The overall goal is to implement and standardize the Golden Hour for post-c-section mothers and ultimately increase patient satisfaction for these mothers. This EBP-based quality improvement project will help further educate the FBC staff on the benefits of the Golden Hour by creating awareness of its importance, specifically with the post-c-section dyad, and promote sustained change in the FBC current practice and provide best-practice care. The implementation of this change will occur in the FBC unit with all medically stable patients during their recovery phase post-c-section.

Framework

The Institute for Healthcare Improvement (IHI) Model for Improvement and the Plan-Do-Study-Act (PDSA) quality improvement tool will be used to guide the implementation of this work. During the "plan" of this project, the project lead will provide education on Golden Hour, including the benefits for both mother and baby and the detriment for post-c-section mother-baby dyads who do not receive this care. Emphasis on quality standards in the field, including AWHONN, will be reviewed. Overview of the project will be discussed during the FBC monthly mandatory in-services where significant stakeholders will be present, allowing for staff feedback and buy-in. After implementation ("do") as outlined previously and seen in the process map (Appendix F), the "study" part of the project will include utilization and review of the data weekly. During the "act" part of this PDSA, the DNP student will summarize data and create sustainability and policy recommendations for the unit administration.

This project aims to implement evidence-based practice for newborn bonding through quality improvement in the FBC unit, including prompt initiation of the Golden Hour for post-c-section mothers at XXX Hospitals FBC. The specific aims of this project are to increase patient satisfaction post-c-section with the implementation of the Golden Hour, recover the mother and infant in the same location, and decrease the delay time of mother newborn initiation of bonding. The IOWA model of EBP implementation was utilized along with the IHI-based quality improvement tools to aid with this process.

As part of the IOWA model, recommendations for continued awareness and staff buy-in will be incorporated into the project. Staff participation includes labor and delivery nurses needed to complete the labor nurse checklist, and post-partum nurses ensure post-c-section patient satisfaction surveys are completed 24 hours after surgery. The unit secretaries will ensure that the labor nurse checklist and patient satisfaction surveys are in the paper medical charts to allow access for all the nurses involved. The unit secretaries will ensure that the forms are separated from the chart for the project director, this DNP student, to collect and review. The manager and project leader will be responsible for attending all staff meetings and recognizing the team efforts taking place. It is important to garner continued senior leadership support. With management celebrating unit progress, it helps each clinician involved see value in the changes being implemented.

Data Collection Plan

Baseline data will be reviewed, including the number of monthly c-section births, initiation of the Golden Hour for post-c-section mothers, stakeholders' knowledge of the Golden Hour, and patient satisfaction with the bonding experience. This will be done by reviewing labor

records that identify cesarean section as the mode of delivery, completed surveys by patients, and labor and delivery nurses' checklist. Data is stored and trended in an excel spreadsheet.

After the implementation of the project, data collection will be ongoing and evaluated (and trended) in real-time to determine the effectiveness of the practice change. Patient satisfaction surveys will be completed 24 hours before discharge. The satisfaction survey can be found in Appendix G. All of these surveys will be collected weekly to review the patients' experience with bonding during the Golden Hour. The survey was available in the most common languages seen in the department: English, Spanish, and Albanian. This is to allow for the most accurate data possible with the incorporation of the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS). All involved staff members were educated on if a new language was identified. The manager, educator, and project director will update surveys as needed during the staff meetings.

Data will be collected monthly to include the number of c-sections on the FBC. Of these identified mother-newborn dyads, data will be collected on whether the initial hour post-delivery was preserved and, therefore, the experience of the Golden Hour. This project will include both planned c-sections and mothers who experienced an unplanned c-section. This data will be collected through a checklist completed by the circulating labor nurse. The project director, this DNP student, will collect these checklists. These data will be summarized in an excel worksheet to assure the preservation of data. The checklist will include simple to answer “yes” or “no” so the nurses to complete the form quickly and not create an undue burden on the staff. Before implementing this project, this checklist will be used for 3-4 weeks to collect baseline data to compare during and post-implementation. The checklist questions include:

- Was this a scheduled c-section or an unplanned c-section? Yes or No

- Was the infant recovered in the same location as the mother? Yes or No
- Was the golden hour initiated during the recovery period? Yes or No

Patients will complete patient satisfaction surveys 24 hours post-c-section deliveries and before discharge. These questions will include the birth experience and focus on their experience of the Golden Hour during their recovery phase post-c-section. An open-ended comment box for any additional feedback will also be available. The survey can be found in Appendix H. A quality improvement tool called a process map was used to display this project's proposed steps visually and can be found in Appendix I.

Data Analysis Plan

All data will be collected, saved, and analyzed in an Excel spreadsheet. All data will be aggregated and averaged to include counts and percentages. The baseline data will be summarized in a table and used to compare pre and post-intervention trending. The data collected during the project include patient satisfaction surveys, and whether the Golden Hour was implemented (to include if the mother-newborn recovered in the same location and what, if any, delay time to bonding occurred) will be totaled and summarized in tables to compare trends and determine if the project goals were met.

A bar graph will be utilized to present data in a time sequence, including both the occurrence of the Golden Hour and patient satisfaction. This data visualization will be shown at the shift huddles and mandatory monthly meetings to show the staff nurses a visual presentation of the progress of the implemented intervention.

Possible Barriers to Implementation

Lack of time and resistance to change may be potential barriers to the success of the implementation process. Inadequate staffing may lead to the incompletion of the labor nurse

checklists. The COVID-19 pandemic may affect the overall timing of obtaining patient satisfaction surveys due to decreased length of stay. A possible barrier includes the newborn's inability to transition to the bedside safely: resulting in a delay or incompletion of the Golden Hour.

Project Timeline

The approvals and buy-in to this project began in the spring of 2020, shortly before COVID-19 devastated the country. The needs assessment, literature review, and evidence synthesis were conducted before writing and presenting a project proposal (Feb 2021). Table1 shows the project implementation timeline, demonstrating a step-wise account of the proposed project activities.

Table 6

Project Implementation Timeline

Time Frame	**Task**	**Status**
Feb-March 2021	Complete project proposal draft	Submitted to Project Advisor (Dr.XXX) for review 3/14/21
March-Apr 2021	Complete official DNP project proposal and present to FBC stakeholders and SHU DNP faculty project advisor, Dr. Goddard	Completed and Approved 4/22/21
March-Apr 2021	Revisions to project proposal as needed	4/22/21 with Dr. XXX
May-Aug 2021	Identify & obtain the required review and approval needed for implementation	IRB Exception status obtained from Sacred Heart University
Sept.- Dec. 2021	Implement project Track any deviations from the project plan and make changes if needed	Initiated 10/4/21 Revised with additional education regarding forms 11/1/21

Sept. 2021- Jan. 2022	Track the frequency of Golden hour completed for post-c-section mothers	Project implemented and revised start 10/4/21 and ended on 1/2/22
Jan. – March 2022	Present final DNP project Submit final DNP project Submit an executive summary	Final paper draft 2/27/22 Final Submission of Paper for Approval 3/11/22

Resources

The anticipated resources for this project include all the named stakeholders and staff including the project director, department manager, education supervisor, charge nurses, labor nurses, post-partum nurses, the quality department specialist, and the patients (mother-newborn dyad). Materials needed for this project are the paper and printing for the surveys and checklists (patient satisfaction surveys and nurse checklist). See Appendices G and H. This project will not incur any additional financial costs to the FBC department.

Ethical Merit and Project Approvals

Quality improvement project criteria for this project have been met as defined by Foster (2013) in differentiating quality improvement and research activities. See Appendix J.
The project does not qualify as human subjects' research by definition and therefore does not require the Institutional Review Board (IRB) at Sacred Heart University (SHU). Because this project is considered evidence-based and helps the FBC move towards the standard of care expected at maternal-newborn birthing centers, XXX Hospital did not require IRB review. Permissions were granted by the FBC department manager.

Any staff from healthcare organizations must understand the responsibility to protect patient's health information during any care process, including quality improvement and evidence-based practice implementation (Newhouse et al., 2006). In this proposed project, the

patient population of cesarean section mothers and the mother-newborn dyad are expected to benefit directly from this project, as the project's aim is directed to improve the healthcare delivery to these patients. On reviewing the project and data to be collected, which included potential identifiers following the HIPAA Privacy Rule, the DNP faculty advisor, and FBC, quality improvement specialist, agreed that an expediated SHU IRB application should be sought. SHU IRB application was submitted on October 11, 2021, and exemption was granted on November 22, 2021. See Appendix K for a copy and confirmation of IRB exemption approval. This letter was kept on file at XXX Hospital and by this DNP student to include for potential submission of future publication of these works or any further dissemination of this project.

Phase 3

Implementation

The start date of implementation of the Golden Hour was October 4, 2021, and ended on January 2, 2022. When implementing EBP in the healthcare setting, introducing and reinforcing the standards of clinical practice requires a multifaceted approach needed to sustain the change over time (Melnyk & Fineout-Overholt, 2019). Therefore, the initiation of the Golden Hour started with stakeholders' education on the project and a discussion of the project timeline. The DNP student-lead stressed the importance of the Golden Hour and its many benefits for the mother-newborn dyad as part of this buy-in process. Information found through the literature review and synthesis was summarized and presented to staff and administration. Additionally, the potential impact in increasing patient satisfaction for the XXX Hospitals FBC was presented. These components, including the project purpose and goals, were presented at the monthly staff meetings to include the overall goal of initiation of the Golden Hour for post-c-section mothers.

Sample/Setting

The target population for this EBP project was post-c-section mothers in the FBC at XXX Hospital. The inclusion criteria for implementation and data collection included any c-section delivery at the FBC operating room and included primary c-sections, repeat c-sections, multigravida, or primigravidae women. Exclusion criteria included fetal demises. All women of childbearing ages were included. No age parameters were included in this project, nor were there any targets or identification of ethnicity or race.

Design

The following phases of the Iowa Model were utilized to help implement the EBP change into practice: creating awareness and interest, building knowledge and commitment, promoting action and adoption, and pursuing integration and sustained use.

Create Awareness and Interest

Creating awareness and interest was important when introducing information about the benefits of the Golden Hour to the FBC department. Identifying and emphasizing the advantages of the Golden Hour for post-c-section mothers was discussed and reviewed with all staff members that had direct contact with patients post-c-section. This education was conducted at the monthly mandatory in-services took approximately twenty minutes and included the key stakeholders. Meetings included discussing the physical and emotional outcomes of the prompt initiation of the Golden Hour for post-c-section mothers. These discussions and presentations of evidence-based information to staff provided a more in-depth awareness of the Golden Hour and helped create interest amongst staff.

Communication via email ensured that all staff members were notified of the project. Due to the unit's varying work shifts, the clinical operations manager created a mass email list with part-time, full-time, and per-diem staff to relay any changes. These communications also allowed

the project coordinator and all the nurse stakeholders to gain any interdisciplinary feedback from other staff. Ongoing feedback and recommendations from the staff were acknowledged and discussed via email and the monthly staff meetings.

As a result of the COVDI-19 pandemic, a deviation from the normal in-person staff meetings was required. Many of the staff meetings took place over the phone, making the education portions of the meeting less personable. However, the project director, this DNP student, made in-person appearances on the unit at least once a week to collect data. This presence allowed the project director to establish a routine with staff, collect the forms from the unit secretaries, and reinforce education around the Golden Hour.

Build Knowledge and Commitment

Education was enforced by presenting credible evidence and national organization guidelines on the importance of the Golden Hour. The national organizations referenced for support of the Golden Hour for post-c-section mothers included the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), and the American College of Obstetricians and Gynecologists (ACOG). These national organizations are recognized professional practice leaders for women's healthcare, obstetric care, and gynecology. They are also recognized for setting the national clinical standards for guidance in women's health care. Implementing the Golden Hour is also recommended as a preventive approach to reduce postnatal depression in women with a traumatic childbirth experience that helped elicit buy-in (Abdollahpour et al., 2019). Utilizing this knowledge and the previous local adaption of the Golden Hour that is now used for mothers who have vaginal deliveries helped the nursing staff recognize these benefits for post-c-section mothers. To note, providing education for commitment and buy-in did not require any additional cost to the department.

After the benefits and the definition of the Golden Hour were discussed with the staff, the DNP project lead asked all of the nursing staff the following two questions: 1) Did you find the education provided helpfully?; and 2) Will you help your patients experience the Golden Hour?

All nurses agreed that the Golden Hour is beneficial to all patients and that all post-c-section mothers should experience it. This survey helped reflect on the nursing staff's commitment to the prompt initiation of the Golden Hour for post-c-section mothers. Meeting minutes were obtained at each monthly meeting and then provided via email to all the appropriate stakeholders. The input of all of the clinicians involved was encouraged continuously and incorporated into monthly PDSA reviews.

During the routine data collection, there were some weeks when the number of c-sections was greater than the number of labor nurse checklists and patient satisfaction surveys. This is where the PDSA cycle was revisited. The project director decided to review how to complete each of the forms and the importance of needing data as part of the quality improvement process. The nursing staff agreed and understood this importance, including verbalizing their support for initiating the Golden Hour. However, feedback included that sometimes the staff forgot to include the surveys and checklists as part of the process.

Additionally, this implementation was initiated during the advent of COVID-19 in the United States. Many staff members were out of work due to quarantine requirements throughout the pandemic. There was already a shortage of nursing staff in the department. This staffing shortage and the use of travel nurses and temporary staff made it difficult to complete the labor nurse checklists and remember to offer the patient satisfaction surveys to the mothers.

Promoting Action & Adoption

Connecting with clinicians, organizational leaders, and key stakeholders was necessary in order to promote action and adoption. Resource materials and quick reference guides on the Golden Hour were located on the staff communication board by the nursing station. These resources were based on the aforementioned EBP guidelines put out through ACOG and obtained through the literature synthesis that was also presented in the educational staff sessions. Creating buy-in was established by educating the clinicians regarding these guidelines and emphasizing the important role that the Golden Hour plays in a mothers' bonding experience with her newborn and its effects on the newborn's adaptation to extrauterine life. The labor nurse and the post-partum nurse were responsible for initiating the Golden Hour during the first hour of the recovery phase. See Appendix I for the process map of Golden Hour initiation for this project. The labor nurse continued to care for the mother, and the nursery-based nurse recovered the newborn in the same room as the mother as long as the newborn was clinically stable.

The incorporation and encouragement of the support person to initiate skin-to-skin during the Golden Hour were added to the process as part of the Plan-Do-Study-Act reflections. This was considered because sometimes the mother was still recovering and unable to provide skin-to-skin contact during that first hour after delivery. This type of recommendation aimed at decreasing patient risks and improving patient outcomes builds confidence from the key stakeholders initiating the change and is an important part of EBP adoption (Cullen et al., 2018).

The patient satisfaction surveys were completed 24 hours after delivery during this phase. See Appendix G. The post-partum nurses collected the surveys, which the unit secretaries confidentially filed, and then reviewed by the project director.

Implementation deviations

COVID-19 caused a specific deviation in this part of the phased implementation. As staffing deficits increased on the unit, the labor nurse had to assume care for both the mother and baby when the infant was brought to the same location as the mother. Traditionally and best practice would have a nurse assigned to the mother and a separate nurse assigned to the baby. As long as the newborn was considered stable, the labor nurse assumed care for the full mother-newborn dyad to assure the Golden Hour was received.

Multidisciplinary discussions were conducted to help troubleshoot implementation barriers. For instance, clinicians identified the staffing shortages as a problem with administering the patient satisfaction surveys, specifically related to the best time to administer them. To continue adaptation of the process, the timing of administering the satisfaction surveys had to be shifted from 24 hours post-recovery at times. Additionally, through this staff feedback and discussion in monthly meetings, the decision was made to move the satisfaction survey to be taken simultaneously as the unit-mandated Edinburgh Postnatal Depression Scale (EPDS). Coupling the satisfaction survey with the EPDS allowed the nurses to hand out the surveys and receive feedback at one time from the patients.

Pursue Integration & Sustained Use

The EBP implementation of the Golden Hour helped to standardize practice for the prompt initiation of the golden hour for post-c-section mothers. The data collected from the labor nurse checklists and feedback will help guide the direction for effectively continuing and sustaining these changes in practice.

This project's global aim was to pave the way for the Golden Hour to be offered and become a standard procedure of the recovery phase for C-section mother-newborn dyads. The manager and project director will be responsible for attending all staff meetings and recognizing

the team efforts as the nurses continue with this practice. When management celebrates unit progress, it helps each clinician involved see value in the changes being implemented.

Ongoing patient satisfaction surveys and a recording of the prompt initiation of the Golden Hour will continue to be key data metrics for the unit to reflect on progress. Feedback from hospital-wide feedback, department staff feedback, and mandatory audits, will also be used to promote the continued practice of the Golden Hour for post-c-section mothers.

Phase 4

Project Evaluation Results

Baseline Data

Baseline data was collected and reviewed. These data included the number of monthly c-section births, initiation of the Golden Hour for post-c-section mothers, stakeholders' knowledge of the Golden Hour, and patient satisfaction with the bonding experience. Baseline data were collected by reviewing the labor records identifying the number of c-sections (mode of delivery) as well as the number of births during a specified time frame. As the Golden Hour was not being offered or conducted prior to this project, initiation of the Golden Hour for the baseline time period was not able to be collected. The time frame examined was 7/1/21 to 9/30/21. Looking at these numbers allowed the DNP student to estimate the number of c-sections that are conducted on the FBC per month. A summary of baseline data can be seen in Table 7.

Table 7

Baseline Data (Timeframe: 7/1/21- 9/30/21) (N=379, Total Deliveries)

Mode of Delivery	Totals
Vaginal Delivery	242
C-Section Delivery	137

TOTAL DELIVERIES	379

Project Improvement Data

Several data sources were targeted to follow the process of change being implemented at the FBC. Data was collected on the number of c-sections on the FBC during a 3-month period from October 4, 2021, to January 2, 2021 (n-118). Both planned and unplanned c-sections were included. See Table 8. The project director, this DNP student, immediately recognized that there was missing data for many of these c-sections, as noted throughout the PDSA process of implementation. The staffing challenges described previously resulted in missing data from this project. Therefore, only available data was able to be reviewed and later analyzed.

Cesarean Sections

The total number of live births during this same 3-month period was 338. C-sections accounted for 35% (n=118) of these births, including scheduled and unscheduled c-section deliveries. Of these 118 c-sections, 44 (37.2%) were primary c-sections and 71 (60.1%) were repeat c-sections. Of the 118 c-sections, 99 (83.8%) were to multigravida mothers, and 18 (15.2%) were to primigravidae mothers.

Table 8

Number of C-Sections (10/4/21 to 1/2/22, 3 months)

Time Frame (1 month)	Number of C-Sections on the FBC Unit
Month 1 (10/4/21 to 10/31/21)	42
Month 2 (11/1/21 to 11/28/21)	38
Month 3 (11/29/21 to 1/2/22	38
TOTAL C-SECTIONS (3 months)	118

Golden Hour and Time to Initiate the Golden Hour

Of the patients who received c-sections during the three months (n=118), 52 (44%) labor and delivery checklists for project data collection were completed. See Appendix H for the checklist. These checklists were completed by the circulating labor nurses and then collected weekly by the project director, this DNP student. See Table 9 for the total number of checklists completed per month across the project time frame.

Table 9

Total Labor and Delivery Nurse "Golden Hour" Checklists (N=118 C-Sections)

Time Frame (1 month)	Number of C-Sections (n)	Number of Checklists (n, %)
Month 1 (10/4/21 to 10/31/21)	42	24 (57.1%)
Month 2 (11/1/21 to 11/28/21)	38	11 (28.9%)
Month 3 (11/29/21 to 1/2/22	38	17 (44.7%)
TOTALS	118	52 (44%)

Of the labor and delivery nurse checklists completed (n=52), 37 (72.0%) newborns were recovered in the same location as the mother post-c-section and therefore received the Golden Hour during the implementation of this project. Newborns that were not recovered in the same location as the mother resulted from medical concerns for the newborn (or in the newborn's inability to recover at the bedside safely) or maternal complications from the c-section. During this time frame, of those mother-newborn dyads in which the checklist was used, 15 (28.8%) of newborns could not recover at the bedside and therefore did not receive the Golden Hour. See Table 9 for a summary of this data.

The time to initiate the Golden Hour was also collected as part of this project by the checklist. The time to initiate the Golden Hour (or recover the newborn with the mother) ranged from 0 minutes immediately post-c-section and up to 90 minutes post-c-section. No newborns who received the Golden Hour exceeded the 90-minute mark, and this was only recorded in the first month of initiation of the project. The Golden Hour was initiated under the 60-minute mark in the second and third months. Because the nurses recorded the time estimates in ranges for some patients, an average time to initiate could not be calculated. See Table 10.

Table 10

Checklist Data (Recovery Location, Time to Golden Hour Initiation) (n=52)

Time Frame (1 month)	Number of Checklists (n)	Recovered with Mom (n, %)	Not Recovered with Mom (n, %)	Time to Initiate (min-max)
Month 1 (10/4/21 to 10/31/21)	24	19 (79.1%)	5 (20.8%)	0-90 mins
Month 2 (11/1/21 to 11/28/21)	11	4 (36.3%)	7 (63.6%)	13-60 mins
Month 3 (11/29/21 to 1/2/22	17	14 (82.3%)	3 (42.8%)	0-60 mins
TOTALS	52	37 (72.0%)	15 (28.8%)	0-90 mins

Missing Data

Due to the barriers mentioned above during this project's implementation time frame, a total of 66 (55.9%) of the nurse checklists were not completed for the total number of c-sections (n=118). This results in unknown data in regards to if the Golden Hour was conducted for those 66 newborns. However, of the 52 known c-section births, a majority of the mother-newborn dyads

However, due to barriers listed during the project, a total of (n=66, 55.9%) labor and delivery nurse checklists were not completed, which resulted in unknown data regarding the initiation of the Golden Hour and patient and infant recovery in the same location. By the third month of implementation, more than 82% of the newborns (from known data of 52 births) were recovered with their mother and received the Golden Hour. Additionally, the time to initiate in months two and three was under 60 minutes, showing a positive change as the project was being implemented.

Patient Satisfaction

Of the 118 c-sections during this project time frame, 65 patients completed the Golden Hour satisfaction surveys. See Appendix G for the patient satisfaction survey. Unfortunately, the patient satisfaction surveys were not necessarily done with the same patients that the data checklist was completed. Therefore, data trending over the three months will be considered. Participation with patient satisfaction surveys increased over the three-month period: the first month (n=18,42.8%), second month (n=21, 55.3%), and third month (n=26, 68.4%). See Table 11 for summary.

Table 11

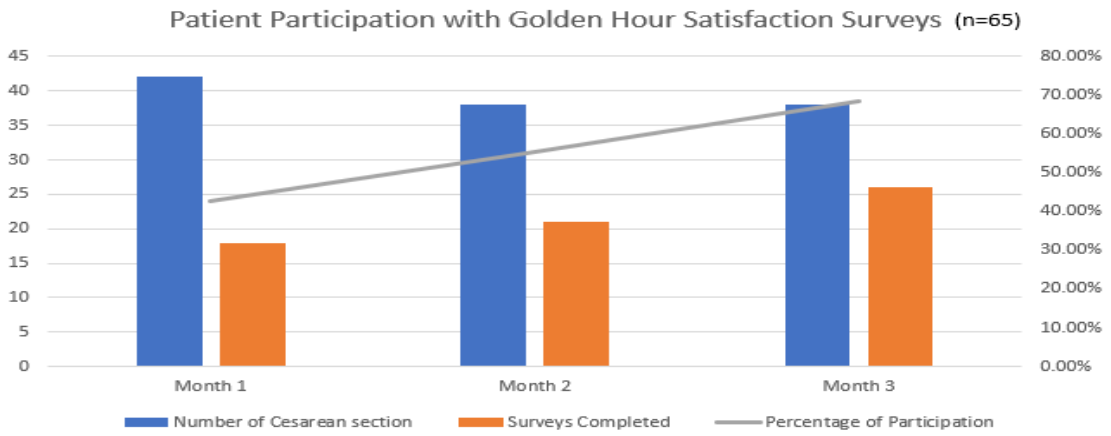
Patient Satisfaction Completion (n=118)

Time Frame (1 month)	Patient Satisfaction Survey Completions
Month 1 (10/4/21 to 10/31/21)	18 (42.8%)
Month 2 (11/1/21 to 11/28/21)	21 (55.3%)
Month 3 (11/29/21 to 1/2/22	26 (68.4%)
TOTAL SURVEYS (3 months)	66 (55.0%)

Every month there was an increase in patient satisfaction surveys completed and positive patient satisfaction. Figure 1 displays the number of c-sections per month, the completion of the patient satisfaction surveys, and positive patient satisfaction. To note, the number of patients who received the Golden Hour also increased over the same three-month time period.

Figure 1

Patient Participation in Satisfaction Surveys (n=65)



Conversely, several participants reported they were unsatisfied with their bonding experience and said they did not receive the Golden Hour during the birthing process. Figure 2 depicts the overall participation with the satisfaction surveys and the number of satisfied versus unsatisfied patients with the bonding experience and receiving or not receiving the Golden Hour. During the first month of the project implementation, 18 (83%) patients reported satisfaction with the Golden Hour initiation during their birthing process. In month two, that number increased to 21 (85.7%), and in month three increased to 26 (92.3%). Patients that did not receive the Golden Hour had lower patient satisfaction scores as indicated by 2 (17%) in month one, 3 (14.3%) in month two, and 3 (7.69%) in month three. Overall, women that received the Golden Hour were satisfied with their experience (n=56, 87.7%), while those that were not satisfied

(n=8, 12.3%) did not receive the Golden Hour. Figure 3 displays the overall patient satisfaction feedback with receiving or not receiving the Golden Hour.

Figure 2

Patient Satisfaction with the Golden Hour

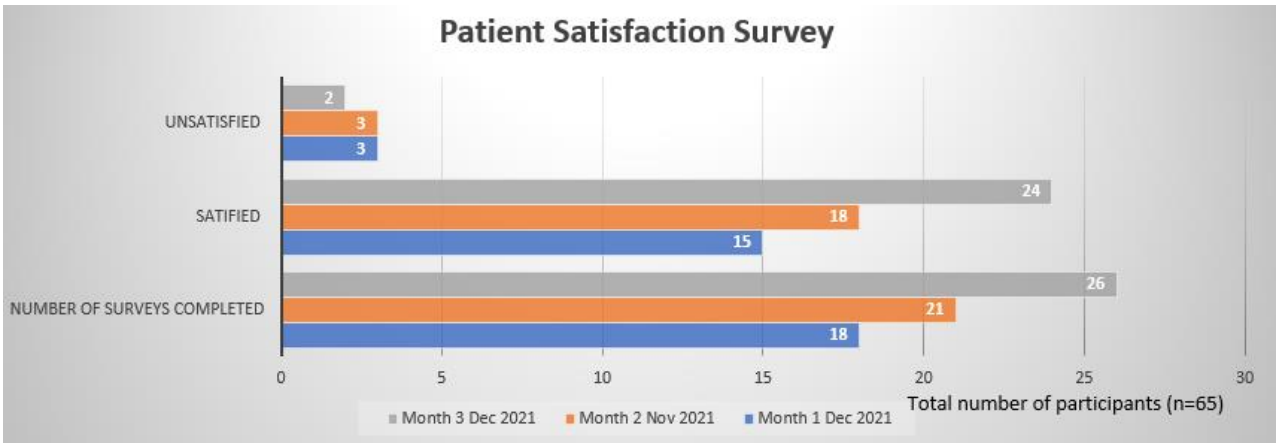
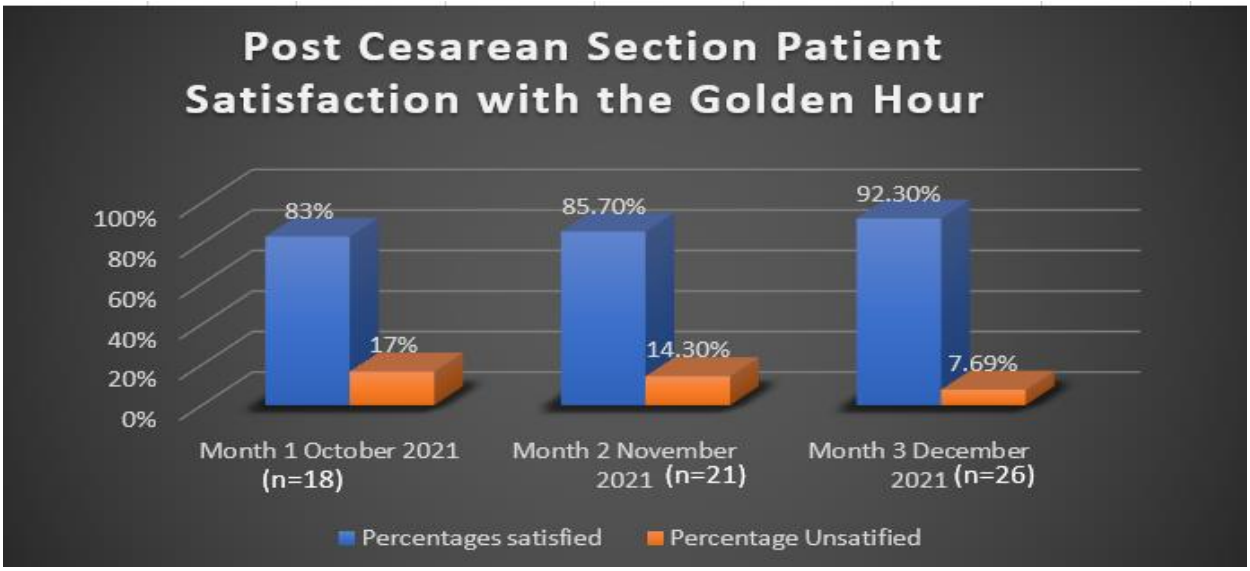


Figure 3

Post C-Section Patient Satisfaction Scores (n=65)



Patient Anecdotal Feedback. On the patient satisfaction survey, patients were allowed to provide any additional feedback in an open-ended item on the survey. Many patients commented on helpful and friendly staff, while others reported they were happy to experience

the Golden Hour. Patients who received the Golden Hour were more likely to write comments reflecting on appreciation of the staff and the satisfaction that they were able to have this special bonding time with their newborn. Table 6 summarizes patient comments regarding the Golden Hour implementation.

Table 12.

Anecdotal Patient Feedback

Satisfied vs. Not Satisfied	Comments
Patients satisfied with their experience	"Staff were friendly and helpful. I am happy with my experience." "I'm very happy with the bonding time I got. The nurses were excellent." "I am so glad I was able to experience the Golden Hour, which was new for me I didn't get to do this a year ago with my son." "My overall experience was amazing." "Everyone was perfect thank you for all the help and support."
Patients not satisfied with their experience	"I am not sure why but 90 mins went by after my c-section and when I saw my daughter again." "Partially experienced Golden Hour" "Not satisfied, but it was better than my last experience." "I had a cesarean, and I asked twice for baby to go with dad until I was out of surgery, but they took the baby to the nursery." "I was not offered the opportunity for skin-to-skin contact during the first hour."

Summary Evaluation

Of 338 live births during this three-month time frame, 118 (35%) were cesarean section. Of those, 37 (31.3%) were known to receive the Golden Hour of the data collected during this time frame. Most of these patients received the Golden Hour in under 60 minutes, and many individuals reported satisfaction with the bonding experience that the FBC helped initiate during this project. Every month of this project, the number of newborns to recover with their mother post-c-section increased, as did the completed patient satisfaction scores from the surveys.

Phase 5

Dissemination

Internal Dissemination

All of the collected data was reviewed by the project director, this DNP student, and summarized for the FBC administration. This DNP student presented them to the clinical operations manager to include the patient comment feedback from the satisfaction surveys. The operation manager sent a summary of this project and the feedback in an email to all staff, and then this DNP student also presented the data and feedback in the monthly staffing meeting. Several patients additionally mentioned positive experiences with their nurses:XXX, XXX, XXX, XXX, XXX, XXX, XXX, XXX, and staff in general. These nurses were mentioned in several surveys and their patients emphasized their positive experience, as well as how supported their nurses made them feel. Patients who were not satisfied with their experience mentioned they did not receive the Golden Hour or had a delayed initiation time before any bonding. This patient feedback was used ongoing during the PDSA cycle to reinforce education regarding the Golden Hour during the project implementation. This information was also shared with the administration on the unit and with staff at the end of the project.

This project results will also be presented in summary upon completion of this DNP student's work at a staff meeting. The completed poster presentation of the project will also be done after this work and will be available at XXX Hospital's FBC for internal dissemination of the results.

External Dissemination

External dissemination strategies will include the poster presentation for NU 820 at the SHU DNP final intensive day. After graduation, this poster presentation will be submitted to a local or regional forum. The *Journal of Obstetric, Gynecologic, and Neonatal Nursing* is one journal being considered for a peer-reviewed manuscript. However, other quality improvement-based journals will also be considered.

Future of the Project

The administration and management at FBC decided that the Golden Hour will become a standardized part of the plan of care for all women, regardless of c-section delivery, at XXX Hospital. Continued education, staff support, and acknowledgment of successes need to continue in the department to aid in sustainability. Project sustainability was considered and built into the different components of this project's implementation. The PDSAs conducted to include ongoing staff, and clinician feedback gained continued support for sustainability. Continued senior leadership support will be an essential strategy for sustaining any EBP, and this one is no exception. Garnering continued senior leadership support is an essential strategy for sustaining EBP. Standardizing the protocol at XXX Hospital's FBC unit will allow for sustainability with the Golden Hour for post-c-section mothers.

The next step in this practice improvement would be to add an annual competency health stream module about the Golden Hour to help keep education current. Components of the labor

and delivery nurse checklist would need to be converted into an electronic medical record (EMR) as an assigned "task." EMR reminders would help the nurse complete the Golden Hour and document the occurrence. Incorporating the checklist into the medical record would also serve as becoming a part of the patient's plan of care and normalize the Golden Hour in the recovery process.

Implications for Nursing Practice, Health Policy, and Education

With the project implementation, clinical findings suggest that if the QI project were to remain in place, patient satisfaction for post-c-section mothers with the Golden Hour would continue to increase. A lesson learned is that understanding the needs of the patient population served in FBC helped guide stakeholders in improving nursing practice on the unit. Showing the importance of the Golden Hour using standardized guidelines and the literature synthesis step of EBP allowed higher-level buy-in and commitment at the unit level. The staff feedback and the patient satisfaction surveys also helped improve nursing education for the FBC. If the Golden Hour becomes part of the standard protocol and eventually a policy at the FBC, it will help create and foster a new culture of health for health promotion due to known benefits for both the mother and newborn.

Summary Recommendations

The Golden Hour was implemented for 52 cesarean section mothers, of which 100% reported satisfaction with the experience. Overwhelmingly positive patient satisfaction surveys of those who reported a positive bonding experience and the data presented throughout this project led to a departmental shift in practice protocol towards evidence-based practice standards for the post-c-section mother-newborn dyad. The overall project implementation reflected an increase in patient satisfaction for the unit, including recognizing several nurses on the floor. The

Golden Hour provided support, empowerment, and mother-newborn dyad bonding. The prompt initiation of the Golden Hour allowed post-c-section mothers to experience an irreplaceable period of bonding time they each deserved. With clinician feedback and patient satisfaction surveys, the Golden Hour was successful for those who participated. With this newfound data, the efforts of the FBC staff with time the Golden Hour will be a standardized part of clinical practice for all mothers in the FBC department.

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Appendix A

Evidence Search Plan CINAHL

Table 1

CINAHL Complete: Search Terms and Results

Search Terms	**Number of Articles populated**	**Number of Articles reviewed**	**Number of Articles selected**
Golden Hour after birth	2	2	1
Golden Hour	102	10	2
Golden hour AND bonding	3	3	1
mother and baby in hospital AND bonding	12	12	2
Skin to skin after birth AND patient satisfaction	186	15	3
cesarean section AND bonding or attachment or relationship	314	20	5

Appendix B

Evidence Search Plan Medline

Table 2

Medline: Search Terms and Results

Search Terms	**Number of Articles populated**	**Number of Articles reviewed**	**Number of Articles selected**
Golden Hour after birth	4	1	Duplicate from prior search
Golden Hour	165	4	1-selected 2-were duplicates
Golden Hour AND bonding	1	1	1-Duplicate from prior data base search
mother and baby in hospital AND bonding	3	3	0
Skin to skin after birth AND patient satisfaction	3	3	1-Duplicate from prior search
cesarean section AND bonding or attachment or relationship	547	20	1-selected -Several were duplicates from prior data base search.

Appendix C

Table 3

Levels of Evidence Synthesis Table

X (copy symbol as needed)	**1**	**2**	**3**	**4**	**5**	**6**
Level I: Systematic review or meta-analysis						
Level II: Randomized controlled trial	X					
Level III: Controlled trial without randomization						
Level IV: Case-control or cohort study						
Level V: Systematic review of qualitative or descriptive studies		X	X			
Level VI: Qualitative or descriptive study, CPG, Lit Review, QI or EBP project				X		
Level VII: Expert opinion					X	X

LEGEND

1= Abdollahpour et al., 2019. **2=** Cetisli et al., 2018. **3=** Karimi et al., 2020. **4=** Eckenrode, 2018.

5= Kjelland, 2020. **6=** Niela-Vilen et al., 2020.

Appendix D

Table 4

Outcome Synthesis Table

↑, ↓, —, NE, NR, ✓ (select symbol and copy as needed)	**1**	**2**	**3**	**4**	**5**	**6**
SS	✓	**NE**	✓	**NE**	**↑**	✓
PS	**NE**	**NE**	✓	**NE**	✓	**NE**
MA	✓	✓	**NE**	✓	✓	✓
GHR	**↑**	**NE**	**NE**	**NE**	✓	✓
CSM	✓	✓	**NE**	**NE**	✓	✓
BF	✓	✓	✓	**↑**	✓	**↑**

SYMBOL KEY

↑ = Increased, ↓ = Decreased, — = No Change, NE = Not Examined, NR = Not Reported (introduced at beginning but never reported at the end), ✓ = applicable or present

LEGEND

1= Abdollahpour et al., 2019. **2=** Cetisli et al., 2018. **3=** Karimi et al., 2020. **4=** Eckenrode, 2018. **5=** Kjelland, 2020. **6=** Niela-Vilen et al., 2020.

Skin to Skin **(SS)**, Patient Satisfaction **(PS)**, Maternal attachment **(MA)**, Golden Hour **(GHR),** Cesarean section mother **(CSM),** Breastfeeding **(BR)**

Appendix E

Table 5

Evidence Summary Table

Citation	**Conceptual Framework**	**Design/ Method**	**Sample/Setting**	**Major Variables Studied and Their Definitions**	**Outcome Measurement**	**Data Analysis**	**Findings**	**Level of Evidence/ Quality**	**Quality of Evidence:** **Critical Worth to Practice**
Author **Year** **Title** **County** **Funding**	**Theoretical basis for study**		**Number** **Characteristics** **Exclusion criteria** **Attrition**	**Independent variables** **IV1 =** **IV2 =** **Dependent variables**	**What scales used - reliability info (alphas)**	**What stats used**	**Statistical findings or qualitative findings**	**Level =**	**Strengths** **Limitations** **Risk or harm if implemented** **Feasibility of use in your practice**
Article 1									
Abdollahpour, S., Bolbolhaghighi, N., & Khosravi, A. (2019). Effect of the sacred hour on postnatal depression in traumatic childbirth: a randomized controlled trial. *Journal of Caring Sciences,* 8(2), 69–74. doi:10.1517	N/A	Randomized control trial	84 mothers who had experienced a traumatic childbirth were randomly allocated into the intervention (n = 42) and control (n = 42) groups. The intervention group received sacred hour (baby's nine instinctive responses), but the control	IV1= intervention group received sacred hour (baby's nine instinctive responses) IV2= control group received only the routine care Dependent variables= traumatic	DSM_V_TR criterion Edinburgh scale	The data was analyzed using t test, chi-square test and the repeated measures analysis of variance.	There was a significant difference between the intervention and control groups in postnatal depression scores 4-6 weeks after birth and the same significant difference also exists 3 months after birth (P0.05). The results of repeated measures of ANOVA show a statistically significant difference between the marginal total mean scores of depression between the two groups, so that the total score of depression in the intervention group is	Level II/ Good quality	Strengths: The implementation of the nine instinctive stages of the sacred hour to start breastfeeding, not only in nontraumatic childbirth but also in traumatic childbirth can prevent and improve postnatal depression. Therefore, due to side benefits and no cost of early breastfeeding, this intervention can be used as a treatment strategy in traumatic childbirths by midwives or attendants in the delivery room. Limitations: follow up of mothers by telephone and the lack of cooperation of maternity employees to complete the nine instinctual stages of the infant were limitations.

1/jcs.2019.010			group received only the routine care. Postnatal depression was evaluated as primary outcome at 2 week, 4-6 week and 3 month intervals after the delivery. Characteristics: **Inclusion criteria:** included having a term apparently healthy infant, the mother's ability to speak, being Iranian, having no mental illnesses, using no psychiatric drugs and having no history of infertility or traumatic childbirth **Exclusion criteria:** Mothers or babies who needed special care, or received breastfeeding advice from a source other	childbirth increases postnatal depression			7.5(2.6) while it is 9.6(2.6) in the control group. Greenhouse-Geisser test (P= 0.07), the comparison of depression scores at the three intervals show statistically significant differences, that is, with the passage of time, depression scores in the two groups decline		

			than this study, and those who had stressful life events during the past year						
Article 2									
Cetisli, N. E., Arkan, G., & Top, E. D. (2018). Maternal attachment and breastfeeding behaviors according to type of delivery in the immediate post-partum period. Revista Da Associacao Medica Brasileira (1992), 64(2), 164–169. doi:10.1590/1806-9282.64.02.164	N/A	Descriptive and comparative study	175 mothers were attended, 83 of them had vaginal birth and 92 delivered their babies via cesarean section. **Inclusion criteria:** Mothers who (1) were primipara, (2) had been born mature (≥ 38th week), (3) did not have risky pregnancy and had not had risky birth, (4) were literate and (5) were willing to participate in the study.	IV1 = Vaginal births IV2 = cesarean births Dependent variables= Maternal attachment and breastfeeding behaviors according to type of delivery in the immediate post-partum period	Maternal Attachment Inventory and the average score of LATCH Breastfeeding Assessment Score Tool, confirmation of normal distribution was obtained, and parametric (variance analyze, independent sample t-test) and non-parametric tests (Mann-Whitney U and Kruskal-Wallis) were performed. Correlation analysis was used to determine the relationship between the Maternal Attachment Inventory and	All the data was analyzed using SPSS version 21.0 for Windows. The sociodemographic characteristics of women participating in the study were reported as number and percentage distribution. To analyze the average score of the Maternal Attachment Inventory and the average score of LATCH Breastfeeding Assessment Score Tool, confirmation of normal distribution was obtained, and parametric (variance analyze,	LATCH score average, mothers who had vaginal birth scored 7.83±1.88, while those who underwent cesarean section scored 7.04±2.31 points. Again, the difference between them was statistically significant (F=6.027, p=0.015). There is a positive significant relation between the MAI score average and LATCH total score average for both vaginal birth (r=0.675, p=0.000) and cesarean birth (r=0.376, p=0.000)	Level V/Fair quality	Mothers who delivered their babies by cesarean section had problems related to maternal attachment and breastfeeding more often than those who delivered vaginally. Limitations: methods to improve maternal attachment and breastfeeding was not explored in this study.

			Exclusion criteria: not mentioned		LATCH Breastfeeding Assessment Score Tool. p-values <.05 were accepted as statistically significant. Cronbach alpha value found was 0.77	independent sample t-test) and non-parametric tests (Mann-Whitney U and Kruskal-Wallis) were performed. Correlation analysis was used to determine the relationship between the Maternal Attachment Inventory and LATCH Breastfeeding Assessment Score Tool. p-values <.05 were accepted as statistically significant.			
Article 3									
Karimi, F. Z., Miri, H. H., Khadivzadeh, T., & Maleki-Saghooni, N. (2020). The effect of mother-infant skin-to-skin contact immediately	N/A	A systematic review and Meta-analysis	Primary search, 326 articles were obtained, with a total of 12 trials that met the inclusion criteria of the study. Out of the 12 studies, 5 studies were conducted in Iran, 3 India, and the other 4	IV1=mother-infant skin to skin contact immediately after birth on exclusive breastfeeding	Publication bias was assessed statistically using Egger's and Begg's tests. The p values of the Egger's and Begg's tests were	The risk of bias was examined for each study by two independent evaluators using the Cochrane Collaboration's tool. In the event of a disagreement between the	To assess the overall strength of the evidence, the Grading of Recommendation, Assessment, Development, and Evaluation (GRADE) approach was adopted.	Level V / Good quality	Strengths: Multiple evaluators were used in study to decrease chances of bias. 12 RCT reviewed. The articles reviewed in this systematic review and meta-analysis showed that mother-infant SSC increased the exclusive breastfeeding rate. Thus, contact provides the best postnatal care for neonates. In spite of the evidence

after birth on exclusive breastfeeding: a systematic review and meta-analysis. *Journal of the Turkish-German Gynecological Association*, 21(1), 46–56. doi:10.4274/jtgga .galenos.2019.2018.0138			were conducted in Pakistan, Italy, the United States, and Spain. Exclusive breastfeeding was assessed by asking questions from mothers on the phone or via face-to-face interviews in most studies (n=9). The language of 6 studies was English, and 3 studies were in Persian. The data extracted from the studies included in the meta-analysis **Inclusion criteria:** (1) studies with an randomizedcontrol trial (RCT) design, (2) the interventions that consisted of SSC defined as the placing of the naked neonate in the prone position on the mother's bare chest within 10	IV2= infant success after birth on exclusive breastfeeding DV= early hours after birth maternal attachment and effects breastfeeding	0.168 and 0.386, respectively, indicating that no publication bias existed among the studies included.	two evaluators, the issue would be resolved by a third researcher. Using the mentioned tool, 6 types of biases were assessed, including selection bias (random sequence generation and allocation concealment), performance bias (examining the blinding of participants and personnel), detection bias (the blinding of outcome assessors), attrition bias (incomplete outcome data), reporting bias (selective reporting), and other sources of biases. Based on the degree of each type of bias, the studies were assessed and reported with low, high, and uncertain risks.			provided and the benefits of close postnatal contact between the mother and baby, this is not practiced satisfactorily in Iran. In addition, in many cases, the mother and neonate are separated after birth to perform conventional hospital practices, which seems to play an important role in causing lactation disorders Limitations: The authors declared that this study received no financial support, thus probably limiting further study.

			minutes of birth, (3) the participants consisted of mothers and healthy infants between 37 to 42 weeks of pregnancy, and (4) the primary outcome was exclusive breastfeeding up to six months after birth **Exclusion criteria:** There was no secondary outcomes included.						
Article 4									
Eckenrode, J. (2018). The Three B's: Bonding, Breastfeeding, and Baby Friendly. International *Journal of Childbirth Education*, 33(2), 40–42.	N/A	A Quantitative, descriptive design	Nurses (*n* = 153) from 18 non-accredited PHC facilities participated in the study. **Inclusion criteria:** facilities were selected on the basis that they were being	IV1 = nurses' attitudes towards the implementation of Mother-Baby Friendly Initiative (MBFI) IV2=nurses attitudes towards exclusive breastfeeding (EBF) and	The data collection instrument that was used in this study was a structured questionnaire developed by the researcher using the UNICEF/WHO 20-h breastfeeding manual, the	SPSS version 23 was used to analyse data with the assistance of a qualified statistician using a descriptive frequency analysis to describe the demographic data and	Results show that the majority of nurses (professional nurses [PNs] = 65, 78%; enrolled nurses [ENs] = 18, 72%; enrolled nursing auxiliaries [ENAs] = 23, 51%) had a positive attitude towards the MBFI strategy implementation as they agreed that it increased breastfeeding rates. Most PNs (*n* = 58,	Level VI/Good Quality	Strengths: The issue was identified and addressed the study also recorded nurses attitudes towards the education. Implementation of the Mother-Baby Friendly Initiative (MBFI) strategy demonstrated its capabilities to improve global children's health and maternal survival. A self-administered questionnaire was used to collect data. One-hundred and seventy-seven questionnaires were distributed

			prepared for MBFI assessments for accreditation as mother-baby-friendly facilities. **Exclusion criteria: not mentioned** .	complementary feeding	UNICEF/WHO hospital self-appraisal tool, literature on attitudes of nurses towards BFHI/MBFI and the researcher's experience as MBFI assessor and trainer of trainees for the 40-h breastfeeding course. The questionnaire consisted of 27 items as follows: Section A had four items on the demographic characteristics such as age, gender, highest qualification and Section C had 19 four-point Likert scale questions on the attitudes of nurses towards MBFI.	attitudes of nurses towards the implementation of MBFI.	70%) and ENs (n = 15, 60%) showed positive attitudes towards exclusive breastfeeding (EBF) as they agreed that it was the ideal feeding option for any child, and most ENAs (n = 38, 84%) showed a negative attitude as they disagreed that EBF was the ideal feeding option for any child.		Limitations: The research was conducted in clinics in one rural municipality and the results cannot be generalized to clinics in urban municipalities. Nurses are reluctant to adopt
Article 5									

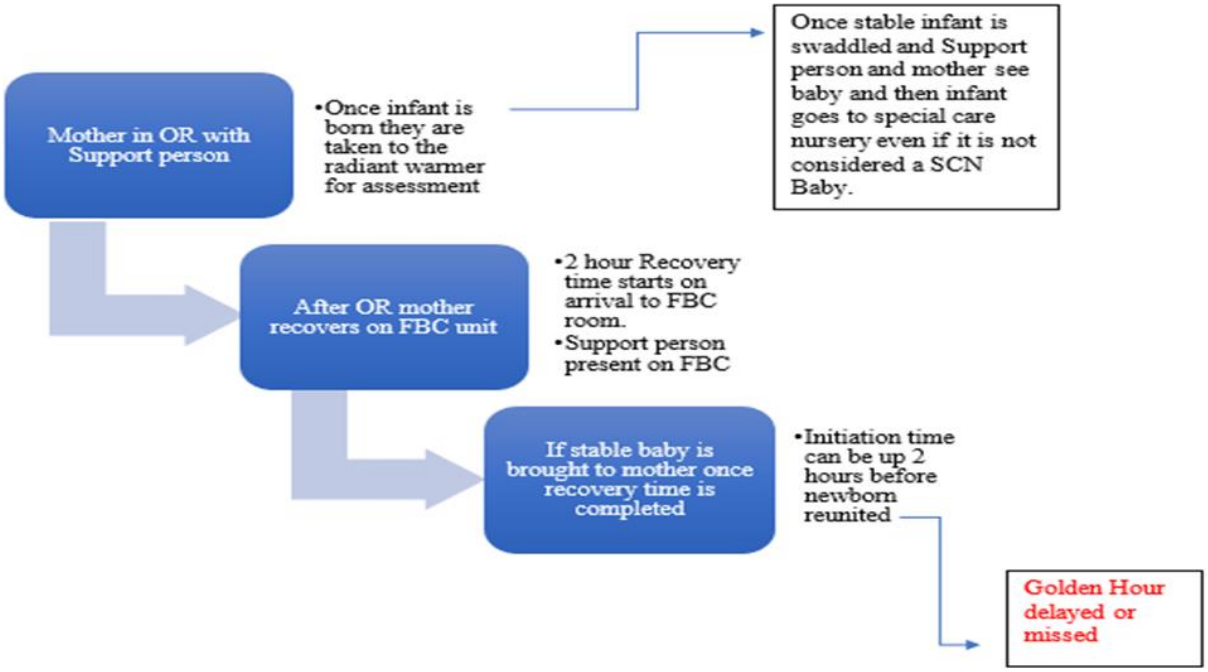
Kjelland, K. (2020). A dedicated nurse for skin-to-skin care after cesarean birth: An evaluation of clinical outcomes and cost. Nursing Management, 51(7), 8–10. doi:10.1097/01.NUMA.0000669096.99601.c7	N/A	Institutional Review Board approved study in a Magnet hospital	393-bed, Magnet-recognized community hospital in the southeastern US. 44 mother-infant dyads participated **Inclusion criteria:** Day shift women admitted to labor and delivery undergoing a cesarean section. Skin to skin in OR or PACU **Exclusion criteria:** All other shifts	IV1=skin-to-skin care for a mother and her infant immediately after birth IV2=breastfeeding initiation in the first hour of life and exclusive breastfeeding IV3=Maternal satisfaction with the skin-to-skin experience DV= intervention's cost.	Mother-infant dyads who participated in this skin-to-skin experience included 52% male (n = 23) and 48% female (n = 21) infants.	Patients satisfaction was tracked by a 4 question survey. In addition, the feeding record for each infant was monitored throughout the hospital stay for breastfeeding exclusivity	Mothers and infants spent an average of 94 minutes (standard deviation = 30 minutes) in skin-to-skin contact while in the OR and PACU. Most study participants (77%, n = 34) had a prenatal intention to breastfeed. Of those participants who desired to breastfeed, 94% (n = 32) initiated breastfeeding in the first hour of life. Among breastfeeding mothers, 50% (n = 17) supplemented with formula at least once during the remainder of their hospital stay.	Level VII/ low quality	Strengths: Interviews with the mothers showed strong satisfaction with the skin-to-skin experience. Assigning a designated skin-to-skin care nurse trained in infants' transition to extrauterine life and breastfeeding support to mothers giving birth by cesarean section resulted in positive outcomes related to breastfeeding and maternal satisfaction. Limitations: Designated skin-to-skin nurses were only available on the day shift, all women admitted to labor and delivery preparing to undergo a cesarean section during the day were offered skin-to-skin care. This leaves evening and night shift out of the numbers. Also, the study was conducted in a midsize community hospital that serves a primarily middle-class population.
Article 6									
Niela-Vilen, H., Axelin, A., & Flacking, R. (2020). The golden hour in Finnish birthing units - An ethnographic study. Midwifery, 89, N.PAG. doi:10.1016/j.midw.2020.102793	N/A	Short-term ethnographic study, which included observations, informal interviews and focus group interview	Two birthing units in this study were located in a tertiary level university hospital (about 4000 births per year) and a secondary-level central hospital (about 1500	IV1= Golden hour initiated post- delivery of placenta for exactly 60min for vaginal delivery. IV2= Golden hour initiated post- delivery of placenta for exactly 60min for post c-section delivery.	Field notes were taken based on observations, using Spradley's (1980) nine-dimension framework for ethnographic observation as a guide. The framework includes perspectives of 1) space, 2) actor, 3)	Thematic network analysis was used to analyze the data. The field notes and the recorded interview data were transcribed and transferred to NVivo Version 11.	'Rule-based' culture prevailed in both units and the guidelines or routine practices were not challenged. The two organizing themes that explained the unchallenged hospital 'rules' were Safety-driven support by midwives and Silent voices of parents.	Level VII/Good Quality	Strengths: Approval from the Ethics Committee of the Hospital District of Southwest Finland was obtained before data collection. All individuals participated voluntarily and signed a written informed consent form. No incentives were used. A protocol for addressing potential observed unethical practices was created in the research group prior to data collection. Limitations: Observation as a method might have influenced the trustworthiness of this study. The researcher's level of participation was as low as possible but their presence might have impacted on the behavior of the people studied. The

			births per year) in Finland **Inclusion criteria:** All pregnant women in labour were eligible for the study regardless of gestational week, parity or pregnancy complications. Second stage of labor participation. **Exclusion criteria:** Only women and their partners whose baby had died in utero were excluded	DV=explore midwives' and parents' perceptions and actions as well as the culture surrounding the first hour after the birth of a baby – the golden hour.	activity, 4) object, 5) act, 6) event, 7) time, 8) goal and 9) feeling. Following the observations, informal interviews were conducted with some parents and attending midwives after the first hour.				observed period was extremely sensitive, and some of the families declined to participate, which might have threatened the trustworthiness of this study.

N/A= Not Applicable

Appendix F

Current Practice Process Map



Appendix G

The Golden Hour Patient Satisfaction Survey

What is the Golden Hour?

The first hour after delivery is often referred to as the "Golden Hour" or "Sacred Hour" which is a time where mom, baby, and the support person get 1-hour of uninterrupted bonding time together.

The goal is to promote mother and baby bonding post-cesarean section by having the baby and mother recover in the same location and limiting time separated.

Please Circle Yes or No or give feedback where indicated.

All information will remain confidential and will be used to help our patients receive the best experience possible when bonding with their infant(s).

1. Did you experience the Golden Hour during your recovery phase? Yes or No

2. Did you get to do skin-to-skin, hold your baby, or get to initiate early breastfeeding during your Golden Hour? Yes or No.

3. Overall, are you satisfied with your bonding experience? Yes or No

4. Is there anything you feel our staff could have done differently to help you experience a better bonding experience with your infant(s)?

Please feel free to add any additional feedback. Thank you for your participation in this survey.

Sincerely,

XXXX Hospital's Family Birthing Center

Appendix H

Labor and Delivery Nurse Check off List:

Please answer the following questions:

1. Was this a scheduled c-section? Yes or No
2. Was it a primary c-section or a repeat c-section? Circle
3. Was the patient a primip or multip? Circle
4. Was the infant recovered in the same location as the mother? Yes or No
5. Was the Golden hour initiated during the recovery period? Yes or No

    - Recovery period time: _____
    - Golden Hour initiation time: _____
    - Was the Golden Hour initiated on route to FBC? Yes or No

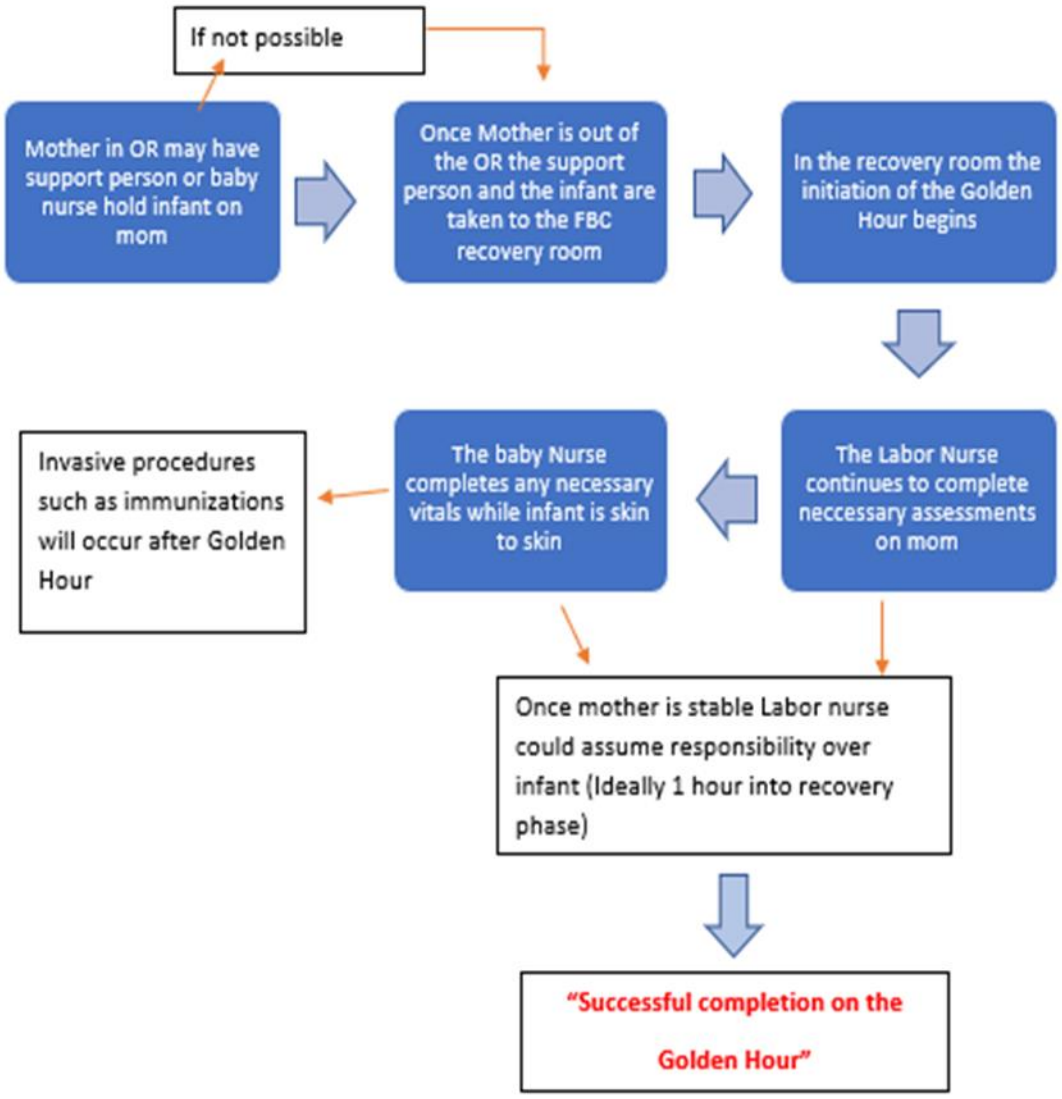
*If the Golden hour was not completed, please state why.

Please feel free to add any additional feedback.

Thank you for your participation.

Appendix I

Process Map of the Golden Hour in Recovery Room Proposed Steps



Appendix J

Differentiating Quality Improvement and Research Activities Tool

Table 5 indicates the Quality Improvement Project criteria have been met. An answer of yes to all the items in l-l0 and no to all the items in 11-14. The project does not qualify as human subjects' research and does require the Institutional Review Board at Sacred Heart University.

Table 5.

Differentiating Quality Improvement and Research Activities Tool

Question	**Yes**	**No**
1. Is the project designed to bring about an immediate improvement in patient care?	X	
2. Is the purpose of the project to bring new knowledge to daily practice?	X	
3. Is the project designed to sustain the improvement?	X	
4. Is the purpose to measure the effect of a process change on delivery of care?	X	
5. Are findings specific to this hospital?	X	
6. Are all patients who participate in the project expected to benefit?	X	
7. Is the intervention at least as safe as routine care?	X	
8. Will all participants receive at least usual care?	X	
9. Do you intend to gather just enough data to learn and complete the cycle?	X	
10. Do you intend to limit the time for data collection in order to accelerate the rate of improvement?	X	
11. Is the project intended to test a novel hypothesis or replicate one?		X
12. Does the project involve withholding any usual care?		X
13. Does the project involve testing interventions/practices that are not usual or standard of care?		X
14. Will any of the 18 identifiers according to the HIPAA Privacy Rule be included?	X	

Adapted from Foster, J. (2013). Differentiating quality improvement and research activities. Clinical Nurse Specialist, 27(1), 10–3. https://doi.org/10.1097/NUR.0b013e3182776db5

Appendix K

SHU IRB Exemption

IRB#211012B

Taber, Prof. Christopher B.
Mon 11/22/2021 2:06 PM

To: Jones, Amanda L.

Cc: Yolen, Nina; Alp, Feride F. 'Funda'

Dear Applicant,
Thank you for your submission to the IRB requesting exempt review. Based on the application submitted, the IRB is pleased to approve your submission and we wish you great success in your research.

Sincerely,
Christopher Taber
Chair, IRB

Christopher B. Taber, PhD, CSCS, USAW2, EP-C, PES
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Assistant Professor
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Sacred Heart University
(203) 396-6342

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