

Inter-professional Education for Baccalaureate Nursing Students

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Objective

- Identify the process of implementing an inter-professional educational experience for nursing, pharmacy and medical students between an educational institution and medical center.

Inter-professional Team

- Nursing Students
- Pharmacy Students (multiple locations)
- Medical Students (multiple locations)

- Rural location in Central Pennsylvania
- Geisinger Medical Center and Bloomsburg University
- Faculty – Medicine, Nursing, Pharmacy and Nursing Academia



Institute for Healthcare Improvement



Institute for
**Healthcare
Improvement**

- **Vision:** Everyone has the best care and health possible.
- **Mission:** Improve health and health care worldwide.
- Students with limited resources to Inter-professional education
- National Academy of Medicine
 - 48,000 - 98,000 patients die each year in U.S. hospitals – not from their disease but due to errors
 - 210,000 – 440,000 deaths each year due to preventable harm in U.S. hospitals
 - 3rd leading cause of death in the U.S.

Growth in the Program

- Semester 1
 - Lecture
 - Activities
 - Team Building
 - IHI Tool Box
- Semester 2
 - Actual QI projects for Level 1, Tertiary Care Center
 - PDSA Cycle for Quality Improvement
 - Oral Presentation
 - Poster Presentation

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

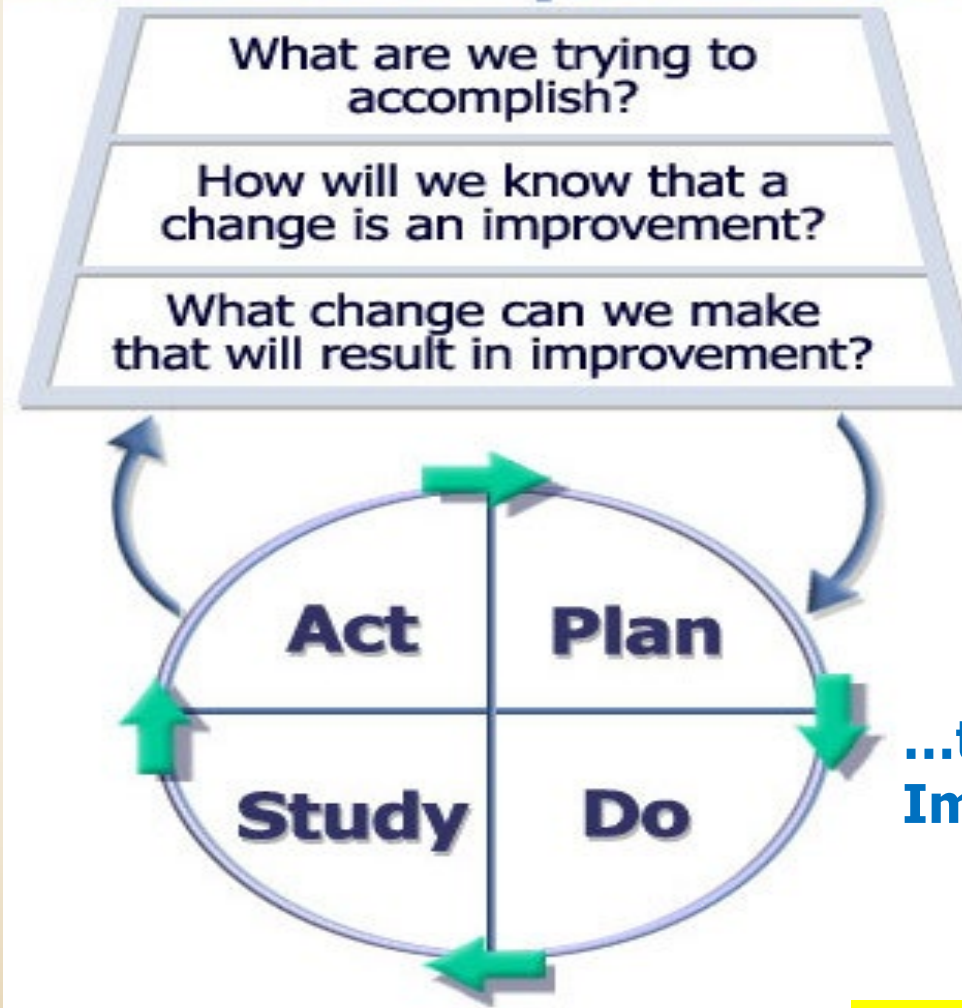




When you combine the 3 questions with the.....

PDSA cycle, you get.....

Model for Improvement

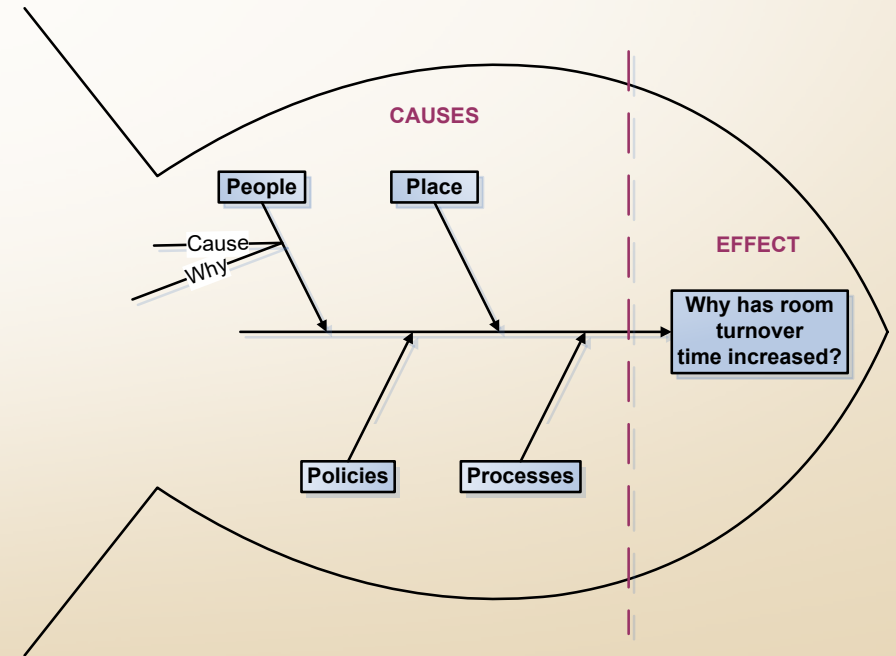


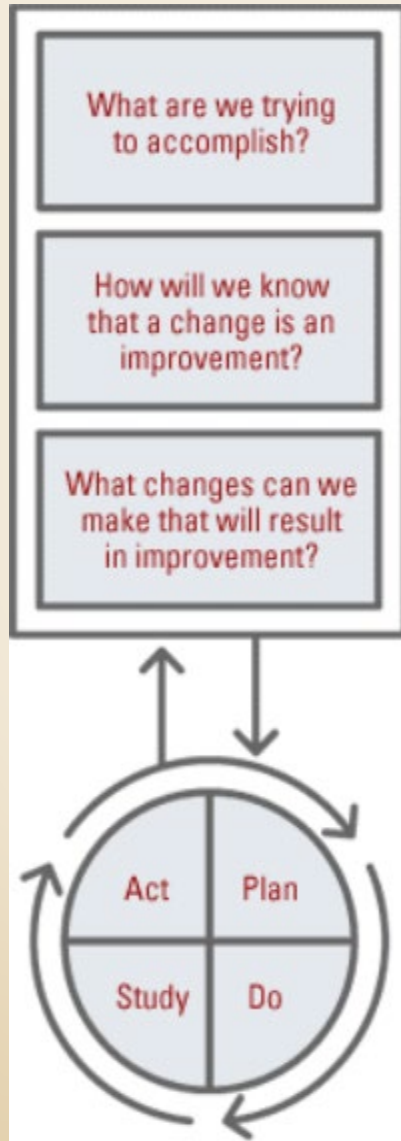
...the Model for Improvement.

A Model for Learning and Change

Outline of Program

- Inter-professional Roles and Relationships
- Culture of Respect
- Team Structure
- Process Flow
- Fishbone diagram
- **Setting Aims**
- **Establishing Measures**
- **Selecting Changes**
- **Testing Changes (PDSA)**





Setting Aims

Improvement requires setting aims. The aim should be time specific and measurable; it should also define the specific population of patients that will be affected

Establishing Measures

Teams use quantitative measures to determine if a specific change actually leads to an improvement.

Selecting the Changes

Ideas for change may come from the insights of those who work in the system, from change concepts or other creative thinking techniques, or by borrowing from the experience of others who have successfully improved.

Testing Changes

The Plan-Do-Study-Act (PDSA) cycle is a shorthand for testing a change in the real work setting – by planning it, trying it, observing the results and acting on what is learned. This is the scientific method adapted for action-oriented learning.

Learning Activities

- Team Building
 - Identifying roles
 - Culture of respect
- Communication
 - Description and drawing
 - Problem-based learning
- Collaboration
 - STEM activities
 - Mr. Potato Head





Innovation

- Focus is on the process; not the person in healthcare improvement
- Working with hospital professionals serving as mentors on actual healthcare concerns with real results in a Level 1 Trauma Center
- Faculty and mentors
- Examples:
 - Changes to formularies
 - Implementing practices
 - Changing long-standing protocols
 - Inventing new tools for effective nursing care

Dissemination of Findings

- Oral Presentations
 - Peers
 - Health System Administration
- Poster Presentations
 - Conferences
 - Academic Setting
- Publications



Aromatherapy Use for Post-Operative Nausea and Vomiting for Patients Undergoing Same Day Surgeries

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Abstract

INTRODUCTION:

Postoperative nausea and vomiting (PONV) is a major concern for patients having surgery under general anesthesia as it causes subjective distress along with increased complications and delays in discharge from the hospital. Aromatherapy represents a complementary and alternative therapy for the management of PONV.

PURPOSE:

The objective of this study was to examine the effectiveness of aromatherapy (QueaseEASE®, Soothing Scents, Inc) on postoperative nausea and vomiting in same-day surgery patients.

METHODS:

This was a quasi-experimental study without a control group. The experimental group (n = 98) received QueaseEASE® essential oil inhalation. The level of postoperative nausea and vomiting was measured using a standard 0-10 scale up to 24 hours after surgery. Nausea severity was measured first at onset of nausea and again 30 minutes after aromatherapy administration. Data was collected via telephone calls within 2-3 days of surgery.

RESULTS:

In total, 27 patients (27.6%) experienced PONV and reported nausea severity scores that showed QueaseEASE® helped to decrease their nausea. Thirty minutes after use, the average improvement in nausea scores was 4.94 ± 2.56 (95% CI 3.98 to 5.91) with an average time to relief of less than 1 minute in 74.1% of patients.

CONCLUSIONS:

Aromatherapy was favorably received by most patients and represents an effective treatment option for postoperative nausea.

Aim

The aim of this study is to determine the effectiveness of QueaseEASE® aromatherapy pods in the treatment of PONV in patients undergoing same-day surgeries.

Introduction

Nausea and vomiting are frequent complications of anesthesia post-operatively. There is an increased prevalence of postoperative nausea and vomiting (PONV) in patients undergoing mastectomies, intra-abdominal, gynecologic, and ear-nose-throat (ENT) surgeries. Many injectable and enteral medications are available for the prevention and treatment of PONV, each with the potential for side effects. Utilization of medications requires a provider order, which has the potential to delay initiation of therapy.

The use of aromatherapy via inhalation for the treatment of PONV has been shown to eliminate nausea in up to 85% of patients. Patients have reported perceived effectiveness and favorable improvement with the use of aromatherapy for post-operative nausea. Aromatherapy products have been shown to be well tolerated with no adverse effects, drug interactions, or contraindications.

Methods

We distributed 100 QueaseEASE® pods to patients scheduled for same-day mastectomies, hysterectomies, intra-abdominal or ENT surgeries. Informed consent was obtained preoperatively. Up to 24 hours after recovery, patients were instructed to document their episodes of nausea, severity at onset and severity 30 minutes after pod use. The severity of nausea was recorded using a scale (0-10) where zero indicates no nausea and ten indicates unbearable nausea. Use of traditional antiemetic medications was not excluded pursuant to individual provider practice. Data for concomitant antiemetic medication use, smoking status, patient age, sex, BMI, and previous history of PONV or motion sickness was also recorded.

Data was collected in the form of patient phone call interviews 2-3 days after discharge. Team members followed a script asking questions following up about the patient's experience with using QueaseEASE®.

Results

Between February 18, 2019 and April 1, 2019, 98 patients were enrolled from Geisinger Medical Center's Post-Anesthesia Care Unit (PACU) to trial QueaseEASE® as part of their post-operative nausea and vomiting (PONV) experience. Of these 98 patients, 27 patients (27.6%) were lost to follow up. Another 40 patients (40.8%) did not experience any PONV. One patient reported that QueaseEASE® did not improve her PONV at all. Another 3 patients did not report any nausea severity ratings, but expressed that when they did use the product, their nausea severity decreased in less than 5 minutes.

In total, 27 patients (27.6%) experienced PONV and reported nausea severity scores that showed QueaseEASE® helped to decrease their nausea. There were fewer men (22.2%) and more Caucasian (96.3%) patients. The most common surgery was abdominal (59.3%), which consisted of hysterectomies, laparoscopies, cholecystectomies, and hernia repairs. There were 16 patients (59.3%) who had at least one risk factor for PONV, and no patient had all three investigated risk factors.

Of the patients who used the pod, 26 patients (90.0%) used QueaseEASE® as their first-line PONV therapy. Thirty minutes after using QueaseEASE®, the average improvement in nausea scores (on a scale of 1 to 10) was 4.94 ± 2.56 (95% CI 3.98 to 5.91) with an average time to relief of less than 1 minute in 74.1% of patients. Nausea severity was decreased similarly regardless of surgery type.

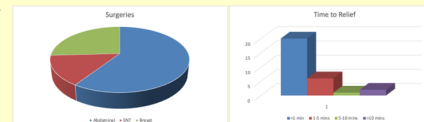


Chart 1. Distribution of surgeries

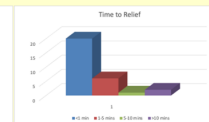


Chart 2. Overall time to relief of PONV

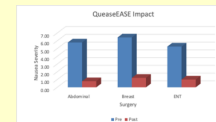


Chart 3. Impact of QueaseEASE® on PONV by surgery

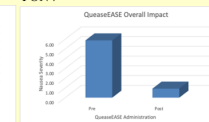


Chart 4. Overall impact of QueaseEASE® on PONV

Discussion

Prior to the initiation of the project, there was evidence-based research that aromatherapy was a viable option in regards to reducing post-operative nausea and vomiting. The project sought out to see if these results could be reproduced amongst same day surgery candidates. The results produced were promising, but had limitations.

Previous projects indicated that decreases in nausea after administration of aromatherapy greater than or equal to 5 units were significant. Our average decrease in nausea was as a 4.94 ± 2.56 . The value is within parameters of significant improvement when the upper limits of standard deviation are included, however, there are still areas where the project could be improved.

The project had limitations associated with the time parameters of the study and population that was selected. A longer time period to collect data could have lead to better selection of patients that fit a certain risk group that would have been better able assess the effectiveness of the pods.

Conclusion

Overall, the project supports the use of aromatic therapy implementation in the setting of same day surgery candidates. However, more data is needed to provide a recommendation for mass distribution. Further analysis, with special considerations in the areas of diversity of surgical procedures are needed.

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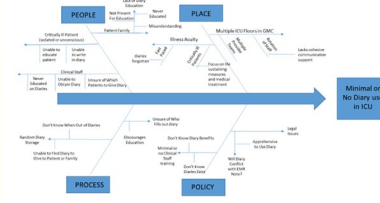
INTRODUCTION

- Recent studies show that up to one-quarter of Intensive Care Unit (ICU) survivors develop Post-Traumatic Stress Disorder (PTSD) as a direct result of their admission
- PTSD negatively impacts the patient's recovery and quality of life after discharge from the ICU
- Research shows ICU diaries can be an effective tool in preventing the development of PTSD
- Patients admitted to the Intensive Care Unit are more likely to experience altered levels of consciousness due to delirium, sedation, traumatic injury, and more. As a result, these patients gain understanding of their hospital stay retrospectively. ICU diaries have been developed to aid the transition from discharge to outpatient recovery. Patient or family entries into an ICU diary help narrate the events of the patient's stay in understandable and relatable language. Prior research has indicated that keeping track of events within the ICU helps patients remember their stay and decreases future mental health morbidity, including decreased rates of newly developed PTSD. In addition, ICU diaries are a great way to integrate patients' loved ones into the healing and recovery process. Informative and updated ICU diaries can help patients understand their fears, process events that have happened, and make sense of their ICU stay. We hope that by providing a central location to keep information, write updates, and share memories, ICU diaries can help patients and their loved ones in their transition out of the ICU and into recovery, even after they leave the unit.

Background

The purpose of this project is to increase the understanding and use of ICU diaries with the hope of mitigating adverse mental health outcomes in ICU survivors. Prior to the onset of this project, very few providers and consequently no patients were aware of the ICU diaries available at Geisinger Medical Center. Previous attempts at launching an ICU diary program were met with hesitation mostly due to misunderstanding the utility of the diaries and concern of legal repercussions of an unofficial medical record.

Problem & Intervention



- Themes
- Understanding
- Purpose of ICU Diaries
- Provider responsibility and accountability
- Accessibility and Ease of Use

Intervention

Themes

- Understanding
 - Identify and address legal concerns of an unofficial medical record by consulting the legal department
 - Increase provider awareness of the importance and availability of ICU diaries through small group education sessions with physicians, nurses, students, therapists, and other providers in the ICU
- Accessibility and Ease of Use
 - Include diaries in "Welcome" packets on admission

Timeline

- 2 weeks planning intervention
 - Identifying key players:
 - Legal department
 - Charge Nurses (education planning)
 - Unit Clerks (inclusion of diary in welcome packet)
- 2 weeks of education and survey collection
- 2 weeks of patient use data collection

Geisinger Medical Center ICU Diary Program

- Recipients: All patients admitted to the ICU
- Entrants: Any patient or visitor
- Role of Providers:
 - Education on purpose of ICU diary
 - Guidance for entry



ICU DIARY: A QUICK GUIDE

This ICU diary is an unofficial medical record. It is not intended to be used as a legal document. It is intended to be used as a personal journal for patients and their families. It is not intended to be used as a legal document. It is intended to be used as a personal journal for patients and their families.

RESULTS

Survey Participants

39 Pre-Education surveys were completed

33 Post-Education surveys were completed

Prior to Education Sessions, providers:

Were concerned about the mental health of ICU survivors

Were not aware of the benefits of ICU diaries

Were not aware of GMC diary program

Reported moderate likelihood of offering and educating patients about ICU diaries

After Education Sessions, providers:

Were equally concerned about ICU survivors' mental health

Were more aware of the benefits of ICU diaries and program at GMC

Believed their own patients would benefit from ICU diaries

Reported increased likelihood of offering and educating patients about ICU diaries

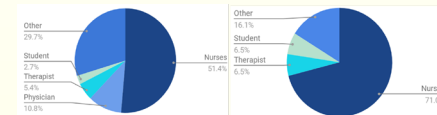


Chart 1. Pre-Education Survey Distribution Chart 2. Post-Education Survey Distribution

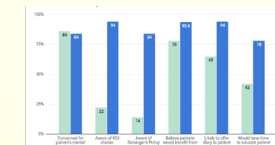


Chart 3. Survey Results Before and After Education Sessions

Clinical Application

Patient Use only

100% of patients received ICU diaries in their ICU Welcome Packet

70% of ICU patients were ineligible: (non-communicable patient OR no visitors present)

35% of the 28 eligible ICU patients reported awareness of their own ICU diary and understanding of its purpose

Enhanced Provider Education

Outcomes

- Increased understanding of roles on healthcare team
- Increased confidence in professional communication
- Enhanced understanding of the healthcare team
- Culture of Respect
- Increased knowledge of Quality Improvement
- Implemented projects can result in actual improved patient experience and/or healthcare process for patient care
- Opportunity for learning outside standard discipline curricula
- Still a need for objective tools to assess IPE competencies to provide link to clinical behaviors

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