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Timing is Everything: Discharge Teaching to Parents in Pediatric Outpatient Surgery

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Abstract

Purpose: The purpose of this evidence-based practice (EBP) change was to improve the timing of discharge education to the parents of pediatric patients under age 18 in an outpatient surgery center to best meet the needs of adult learners caring for their children at home.

Background: Parents' failure to retain knowledge of their child's aftercare instructions during the transition process to home from outpatient day surgery can put their child at risk for undesired post-operative complications after arriving home. Complications such as fever, pain, or uncontrolled bleeding can decrease parents' overall satisfaction with discharge teaching and the overall experience. The rapid pace of outpatient day surgery cases and multiple surgical personnel changes in each phase of perioperative care create transition challenges. Over 50 years of nursing literature support the nursing "golden rule" that discharge teaching begins upon admission. Evidence supports four cardinal strategies including the practice early initiation of discharge instructions before surgery, rather than waiting until the end of the stay. Other recommendations include a distraction-free environment, repetition of key points, and the use of 24-hour follow-up phone calls.

Process Used: The project plan process involved redesigning the role of the existing discharge education registered nurse (DC RN) at a suburban outpatient surgery center. DC RNs educated parents using four cardinal strategies: early initiation of instructions, repetition of key points throughout the length of stay, optimal timing in a distraction-free environment, and use of 24-hour follow-up phone calls by staff. Pre-operative nurses summoned the DC RN to the pre-operative area to begin reviewing home care instructions with parents during the waiting period prior to surgery using standardized written and verbal methods. Prior to discharge, the primary recovery room nurse clarified and reiterated important points to parents and asked parents to recall and teach back the information.

Outcomes: Results from this EBP change project showed no increase in average length of stay times for both the post-anesthesia period and total perioperative length of stay, thus the site's staff was able to successfully increase both the frequency of educational encounters and the amount of educational contact time with parents without causing any delay to the length of stay or increasing labor costs. The number of parents each month requiring further educational remediation neither significantly worsened nor significantly improved. Another success from this project was that zero pediatric patients sought care in an emergency department for follow-up problems during this EBP project.

Conclusions: Evidence-based clinicians ought to carefully consider the timing needs of their audience and provide discharge education that improves care. Meeting the needs of adult learners is an important step toward improving the quality of the instructions given, and helping to better prepare parents to safely and effectively care for the pediatric surgical patient following hospital discharge to home is essential. By selecting an earlier time for initiation of pediatric day surgery discharge education to adult learners, nursing clinicians can potentially increase parents' satisfaction levels with the education being delivered, without creating significant delays in the perioperative length of stay.

Background

In any clinical setting, parents' thorough knowledge and clear understanding of discharge instructions and expectations among provider, patient, and parent, are essential for the child's optimal patient safety and comfort. Furthermore, with skyrocketing medical costs in the United States, insurance companies and other private payers have placed strict regulatory and financial limitations on today's healthcare system. The "triple aim" is the underlying foundational goal in U.S. healthcare today as organizations and providers seek to improve patient quality of care and increase patients' overall health, all while simultaneously decreasing total health care delivery dollars spent (Berwick, Nolan, & Whittington, 2008). This push toward quality health care is the driving force behind the demand for a healthcare organization to do more with less. Leaders, such as nursing managers and center medical directors, must evaluate any opportunities they can find to decrease wasteful spending, increase efficiency, improve patient safety, and boost patient satisfaction. Reimbursement has links to all these factors, but is heavily tied to patient satisfaction. When patients, or their parents/caregivers, do not understand discharge instructions due to poor communication, numerous problems can occur. These may include confusion, complications, unnecessary delays, extraneous testing, and avoidable expenses, all resulting in decreased patient satisfaction and potentially putting a patient's safety at risk. This evidence-based practice (EBP) change project will specifically explore the pediatric outpatient day surgery population of children under 18 years of age who are undergoing surgical otolaryngology intervention to resolve recurrent middle ear and tonsil problems that have failed medical management alone. There is no national or state data on such a narrow problem of focus as discharge instructions for the parents or guardians of this specific outpatient pediatric ear, nose, and throat (ENT) patient population. But current national data tells us that over half a million

tonsillectomies are performed annually in America (Wilson, 2014). According to a study by Le and colleagues (2007), 13 percent of parents perceived themselves as ill equipped to properly care for their post-tonsillectomy child after discharge to home. Also, over half of all families with postoperative concerns said they did not reach out to their child's provider or nurses for advice. Additionally, another large-scale study found that eight percent of these pediatric patients developed post-discharge complications requiring an unplanned trip back to the emergency department (Mahant et al, 2014). Numerous studies cite sore throat as the number one most frequent concern of parents, which heightens a child's risk for decreased fluid intake and other complications (Kassmann et al, 2012; Chen et al, 2012; Le et al, 2007; Kankkunen et al, 2003).

Purpose

The site for this EBP project took place at a busy suburban ambulatory surgery center (ASC) in Orange County, California, where there was a need for better discharge teaching to the parents of pediatric ENT patients. This need was centered around two major factors: one was a desire to more effectively utilize the role of the existing post-anesthesia care unit's (PACU) resource nurse to better capitalize on workflow opportunities for improving parent knowledge retention of instructions. Unlike the resource nurses of some inpatient floors, the role of this outpatient surgery resource nurse (known at this ASC as the discharge education registered nurse, or DC RN) is to facilitate a smooth and speedy discharge by helping the primary nurses with simple tasks and assisting with patient education. Prior to the practice change to reassign the major responsibilities, typical tasks for the DC RN included being a rover nurse assisting the primary PACU nurses on the floor with removing IV catheters, putting away supplies, locating missing family members who are required to drive the patient home from surgery, and reinforcing the discharge teaching of the primary PACU nurse to family members in the

moments prior to discharge. There is typically one designated DC RN for the day. That person, who normally functions on other days of the week as a regular PACU staff nurse, is capable of caring for patients of every outpatient surgery subspecialty (orthopedics, plastics, pediatric otolaryngology, dermatology, urology, gynecology, and general surgery) and is already well-versed in the patient education topics for each surgical specialty. The DC RN also typically assists the other staff nurses in making 24-hour follow-up phone calls to check on patients and reinforce instructions. While they are certainly helpful at times to primary PACU nurses, it is felt by the ASC's leadership team that this role could be used more efficiently. Secondly, the team expressed that they would like to focus on improving discharge teaching specifically for the outpatient pediatric ENT surgical population (tonsil and adenoid (T&A) cases and ear pressure equalizing (PE) tube cases) since this makes up a substantial portion of the cases this ASC typically encounters. The leadership team designated pediatric discharge teaching as a key driver for this ASC in the past during the review of some of its patient satisfaction surveys. Discharge teaching in general was a topic brought up on the meeting agendas by the leadership team at several monthly staff meetings. Bi-weekly survey results from the Centers for Medicare and Medicaid Services' Consumer Assessment of Healthcare Providers and Systems Outpatient and Ambulatory Surgery Survey (OAS CAHPS) was closely monitored by the ASC manager and the rest of the leadership team in an effort to identify and then work to strategically improve upon gaps or weaknesses as perceived by adult patients or the parent of a pediatric patient.

OAS CAHPS data at this site for January thru March, 2016, identified "instructions for care at home/discharge instructions" as a primary need for improvement, scoring 57.9 percent (compared to other ASCs averaging 68.7 percent). The aim of this EBP practice project was to improve parents' retention of pediatric discharge instructions for children under age 18

undergoing outpatient ENT procedures through earlier teaching to the adult learners responsible for caring for children at home after surgery. Reassigning the main role of the existing DC RN position at this project site was proposed. The literature was then reviewed to determine what guidelines or best practices are currently recommended for this problem.

Numerous factors play a part in the scores for parents' self-perceptions in feeling confident that they understand their child's discharge instructions and know the game plan for what to do if problems or questions arise at home. For many parents, having a child go through surgery—even if it is “just elective day surgery”—is a frightening time. Parents reported both at my site and in the literature (Le et al, 2007) that they wish they were more informed earlier in the process of what to expect to prepare themselves and their child. Emotions loom large, as fear, anxiety, and a lack of control of the situation are sometimes felt by parents. Self-efficacy is important as parents try their best to hide their internal worries and fears from their child, so as to not frighten the child more. Aside from emotional barriers of not being able to focus on listening to the surgeon, nurse practitioner, or physician assistant, parents may often feel constantly distracted by their child's restlessness or cries during the very brief post-operative time normally allotted for discharge education in an ASC setting. DC education sometimes felt rushed in the day surgery PACU setting. Additionally, some pre-op RNs acknowledged that they are too busy to do the DC education ahead of time in addition to their usual responsibilities prior to surgery.

With the pay-for-performance payment model in today's healthcare system, many healthcare providers and staff feel the pressure to keep up in a fast-paced environment with a need for quick turnover of patient rooms. Pre-op staff must be ready to admit the next patient immediately after the previous patient has vacated that bay.

Also allowing the problem to persist is the organizational culture that “traditionally, that

is just the way it has always been” type of attitude when asked why DC education is always reserved for what seemingly might be one of the absolute *worst* times for adult learning to take place: the final step before the child is ready to go home, right when they are at the peak of screaming and crying. Parents can sometimes falsely conclude that their child is screaming because of pain, thus heightening their own internal anxiety, when actually children are sometimes crying due to their fear of the foreign sensations and dislike of the inebriating feeling that comes with receiving anesthesia and being in a strange, altered state that the child is powerless to control. Add also to this that they are in a foreign place without the safety of their parents’ familiar faces.

Synthesis of the Evidence

PubMed, Ovid, Cochrane Review, and CINAHL online databases were used to search for the evidence. Keywords searched were “post-operative teaching,” “timing,” “parent education,” “discharge teaching,” “pediatric surgery,” “patient teaching,” “day surgery,” “discharge instructions,” and “knowledge retention.” Initially, there were 122 articles found and 55 articles reviewed. This was then pared down to 23 articles that were reviewed in greater detail.

Evidence from meta-analyses in the literature repeatedly support four strategies to improve adult knowledge retention of surgical discharge instructions. The first strategic action is initiating the education right away prior to surgery (either prior to scheduled surgery date or early on in the preoperative admission stages) to better prepare the patient and family members (Devine, 1992; Hathaway, 1986; Ronco, Iona, Fabbro, Bulfone, & Palese, 2012). Next, is frequent, repetitive exposure to the educational content through multiple different delivery methods (Ronco, Iona, Fabbro, Bulfone, & Palese, 2012). The third key is making sure that the content is easy-to-read and that it is written at the appropriate health literacy level (Stern &

Lockwood, 2005; Ronco, Iona, Fabbro, Bulfone, & Palese, 2012). Lastly, calling the child's parents to follow-up within 24 hours of the surgery to reinforce the instructions has also been shown to be effective (Devine, 1992; Ronco, Iona, Fabbro, Bulfone, & Palese, 2012).

Practice Change

The proposed evidence-based practice change strived to capitalize on an innovative opportunity to make better use of an already existing role by mobilizing the use of the DC RN for discharge teaching. It was felt that opportunities existed for improving the ASC's timing of discharge instructions to patients and their families, even though the concept of early initiation of instructions has continually appeared in the literature for more than 50 years. One of the biggest nursing clichés or golden rules of fundamental nursing practice repeated over and over in nursing schools around the world to students is the following: "discharge teaching begins upon admission." This practice change aimed to simplify the interdepartmental systems-process by dispatching the DC RN to the patient's bedside. The ASC's leadership team desired to create change in order for continuous quality improvement in this area, and they were especially receptive to literature-backed idea of changing the timing of the delivery of DC teaching by the DC RN. It was felt that this would be a simple and sustainable intervention that was heavily supported by the literature.

Implementation

Once the primary pre-op nurse had finished preparing a child for surgery and administered the oral pre-surgical sedative medication as ordered, the DC RN from the PACU was then summoned to the bedside via existing staff headsets already used by staff for inter-department communication. This was an opportune time of peace and quiet for most parents during the long waiting period before the operative team would come to take the child into

surgery. It was the time that the pediatric patients would typically be getting drowsier and calmer from the pre-surgical sedative medication. The parents were often quietly sitting next to their sleepy child patiently just waiting for the surgery team to come get the child. This quiet, unrushed moment in the perioperative process would create a good learning environment for the adult learner needing to have minimal distractions. As such, rather than making the DC RN wait for the patient to be brought to their currently designated corner of the PACU area following surgery, the DC RN would come directly to the patient and their parents room before surgery. There was no need to create a brand new role, or hire and train new staff members. The site already possessed all the required internal resources. The practice change simply modified the *timing* of when the content was delivered to parents by mobilizing the instructor from the PACU side over about 30 yards to the adjoining pre-op side of the unit as part of the practice change. Also, it was the assigned DC RN for the day who now assumed the majority of the teaching responsibility, instead of the previously shared responsibility between both the PACU primary RN and the DC RN at the final stage of recovery in PACU. The content remained the same, as did the methods or formats used to deliver the content. The change was carried out with the existing DC RN staff members who already had extensive experience and knowledge mastery of the specific content to address with the adult learners. Additionally, these nurses were already familiar with the methods to deliver that content via structured verbal discussion with parents using the organization's existing outline of standardized topics, as well as use of existing pre-printed handouts that contained the otolaryngology surgeon's specific aftercare instructions for the specified ENT surgeries. It was initially considered possible, though not evaluated in this project specifically, that the practice change might also reduce the number of phone calls the on-call pediatric otolaryngology surgical providers receive at often inconvenient hours from

uninformed parents who sometimes call after failing to retain knowledge taught to them about their child's home care after discharge. The standard of care of use of 24-hour follow-up phone calls was continued during this project, as this current practice is supported by the evidence (Flanagan, 2009) and is fairly common practice across the nation today (Le et al, 2007).

Anticipated barriers included possible staff resistance if the DC education were to occur at inopportune moments that delayed the pre-op RN's workflow. Also, adjusting to changes can be difficult for some. For example, getting the ASC's staff to adjust to using new radio headsets last year was difficult at first. But by a year later, this change was already embedded in the work culture and no longer a barrier, but a strength at this ASC. This cohesive staff excels at using the radio headsets with good compliance to clearly communicating with each other. No added personnel would be required. Only minimal financial resources were needed (under \$200 for total costs to educate staff and launch the project). Updates to all staff were communicated as part of the already existing monthly staff meetings.

There is a potential opportunity for larger returns on investment in the long-term via better patient satisfaction and subsequently reimbursement increases, making this practice change incredibly feasible and affordable from a staffing and financial resources perspective. The three DC RNs on the staff (the project champions), while sometimes stubborn, were incredibly persistent, motivated, supportive of the idea, and very eager to start this initiative in collaboration together as a team. Rosswurm and Larrabee's linear, six-step nursing model, A Model for Evidence Based Practice, or sometimes referred to as the EBP Model, was used to guide this practice change project (1999).

Outcomes

One outcome measured was the number of parents successfully completing the discharge

education period with and without needing remediation education. Another out looked at the length of stay (LOS). This was measured via EHR abstraction by looking at total ASC LOS time and PACU LOS time with zero percent increase expected in the first month. Upon follow-up phone calls made the next day to parents (already part of the standard of care), it was hoped that less than 25 percent of the parents would state a lack of understanding of DC instructions on the existing EHR charting form, thus requiring remediation education over the phone on their child's postoperative instructions with one of the recovery room nurses.

It was thought that if LOS/workflow efficiency, and parent satisfaction are improved, positive financial implications are to be expected in the form of PACU RN staffing hours worked and increased revenue from reimbursement, higher rankings, and possibly new clientele hearing from friends about how satisfied they were with the efficient care given at this ASC. PACU LOS is expected to decrease by two percent with no change in total ASC LOS time due to improved efficiency of the education being delivered during an idle time while the parents are just waiting in the pre-op area. Upon follow-up phone calls made the next day to parents, less than 15 percent of the parents will state lack of understanding of DC instructions on the EHR form.

Implications for Practice

Results from this EBP change project showed no increase in average length of stay times for both the post-anesthesia period and total perioperative length of stay, thus the site's staff was able to successfully increase both the frequency of educational encounters and the amount of educational contact time with parents without causing any delay to the length of stay or increasing labor costs. The number of parents each month requiring further educational remediation neither significantly worsened nor significantly improved. Another success from this project was that zero pediatric patients sought care in an emergency department for follow-up

problems during this EBP project.

Conclusions

The delivery high quality education to parents must begin sooner and occur away from areas of intense distractions to best meet the needs of adult learners. There is a sufficient body of evidence in the literature to support the practice of early initiation of post-operative discharge teaching before surgery. It can even be argued that the current practice at this ASC for the timing of the discharge teaching is *not* evidence-based. Instead of discussing the aftercare patient needs with parents early on during the child's stay, this education is almost always delayed until the final moments together. Parents' failure to retain knowledge during the whirlwind phase of preparing for day surgery discharge can put the patient at risk for complications at home and decrease parents' satisfaction with the overall experience at the ASC. Thus, it is imperative to translate the proven, evidence-based methodology of earlier timing into clinical practice at this ASC site.

Evidence-based clinicians ought to carefully consider the timing needs of their audience and provide discharge education that improves care. Meeting the needs of adult learners is an important step toward improving the quality of the instructions given, and helping to better prepare parents to safely and effectively care for the pediatric surgical patient following hospital discharge to home is essential. By selecting an earlier time for initiation of pediatric day surgery discharge education to adult learners, nursing clinicians can potentially increase parents' satisfaction levels with the education being delivered, without creating significant delays in the perioperative length of stay.

References

- Berwick D., Nolan T., & Whittington J. (2008). The triple aim: care, health, and cost. *Health Affairs*, 27 (3):759-69.
- Devine, E. (1992). Effects of psychoeducational care for adult surgical patients: A meta-analysis of 191 studies. *Patient Education and Counseling*, 19(2), 129-142.
- Flanagan, J. (2009). Postoperative telephone calls: Timing is everything. *AORN Journal*, 90(1), 41-51. doi:10.1016/j.aorn.2009.04.001
- Hathaway, D. (1986). Effect of preoperative instruction on postoperative outcomes: A meta-analysis. *Nursing Research*, 35(5), 269-275. doi:10.1097/00006199-198609000-00004
- Le, T., Drolet, J., Parayno, E., Rosmus, C., & Castiglione, S. (2007). Follow-up phone calls after pediatric ambulatory surgery for tonsillectomy: What can we learn from families? *Journal of PeriAnesthesia Nursing*, 22(4), 256–264. <http://doi.org/10.1016/j.jopan.2007.05.004>
- Mahant, S., Keren, R., Localio, R., Luan, X., Song, L., Shah, S., & Srivastava, R. (2014). Variation in quality of tonsillectomy perioperative care and revisit rates in children's hospitals. *Pediatrics*, 133(2), 280-288. doi:10.1542/peds.2013-1884
- Ronco, M., Iona, L., Fabbro, C., Bulfone, G., & Palese, A. (2012). Patient education outcomes in surgery: A systematic review from 2004 to 2010. *International Journal of Evidence-Based Healthcare*, 10(4), 309-323.
- Rosswurm, M., & Larrabee, J. (1999). A model for change to evidence-based practice. *Journal of Nursing Scholarship*, 31, 317-322. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10628096>
- Stern, C., & Lockwood, C. (2005). Knowledge retention from preoperative patient information. *International Journal of Evidence-based Healthcare*, 3(3), 45-63.

Wilson, J. (2014, January 20). 'Routine' tonsillectomies not so routine. Retrieved from
<http://thechart.blogs.cnn.com>

Appendices

Chart of Parental Retention of Discharge Teaching (Pre and Post Data)

Chart of Average Parental Self-Perceived Comfort Levels Following Receipt of Discharge Education on Specific Post-Operative Topics Taught

DNP Project Poster

Timing is Everything: Discharge Teaching to Parents in Pediatric Surgery

Kate Boulder, DNP Student, BSN, RN, CCRN Joseph Burkard, DNSc, CRNA
Kathleen Boyadjian, BSN, RN, CPAN Kyle Wehner, MD

Background

- Typically fast-paced environment
- Many staff personnel changes during the perioperative length of stay (peri-op LOS)
- Many barriers for adult learners: lack of continuity of staff, emotional stressors, physical distractions during education

Purpose

- To improve parents' retention of discharge education for pediatric patients (under age 18) undergoing ear/nose/throat (ENT) surgery in an outpatient ambulatory surgery (OAS) center

Evidence for Problem

- 13% of US parents feel they fail to retain minimally adequate knowledge of their child's aftercare surgical instructions
- Around 3% of pediatric denotonsilectomy patients require an unplanned revisit for a complication after ENT surgery
- 4% of these patients seek care in an emergency department (ED) with only 6.8% of these being hospital admissions
- \$1420 Average cost of child's ED revisit
- \$8200 Average cost of hospital admission
- 50+ years of nursing literature support "nursing golden rule": Discharge process begins upon admission
- Evidence on timing of education supports initiating the process of post-op discharge education to parents before surgery

Evidence-Based Intervention

- Standard care: education at end of OAS stay
- Re-designation of job duties to OAS discharge education registered nurse (DCRN) in order to implement the cardinal strategies for education supported by current literature
- New process: post-op teaching to parents now at beginning stages of OAS stay

Project Plan/Process

- Training session for staff held prior to project rollout
- All 12 OAS pre-operative and post-operative nurses successfully completed the brief training during a monthly staff meeting
- Once the child's sedative medications have been administered, pre-operative RN summons the post-anesthesia care unit (PACU) DCRN to the child's room in the pre-operative area
- DCRN then begins giving aftercare education to the child's parents during this waiting period immediately prior to surgery
- Following surgery, recovery room primary nurse to patient reinforces the aftercare instructions to the parents and clarifies key points prior to the child's discharge
- Rollout of evidence-based practice (EBP) change: started in September 2016
- Project completed: ended in December 2016
- Data analyzed/reviewed with stakeholders
- Decision made to sustain the project

Framework/EBP Model

A Model for Change to Evidence-Based Practice by Ross and Larrabee guided this EBP project

Evaluation Results

Implications for Clinical Practice

- Parents not retaining aftercare knowledge very costly → patient safety risk if poor outcomes: fever/pain/dehydration/post-op site hemorrhaging at home → potential for revisits to the ED within first 30 days of surgery, some of which could likely have been avoided
- Goal: fewer ED revisits — No CMS reimbursement to sites for ED revisits w/in 30 days of surgery!

Cost-Benefit Analysis

- Extremely cost-efficient: minimal training
- Startup costs of \$172 with no further costs
- Potential savings of \$28,000+ per year estimated for this OAS center in cost avoidance just by reducing revisits to ED for post-op complications by half
- Additional opportunities to generate even more revenue beyond this estimate include:
 - Direct relationship between strong OAS CAHPS scores and financial reimbursement by CMS (Centers for Medicare and Medicaid Services) for high-performing OAS centers
 - Ability to expand current clientele's word-of-mouth preads to others in reputation for outstanding safety and satisfaction in quality of care received at this OAS center

Conclusions

- Successfully maximized amount of time spent educating parents by making better use of leave of DCRNs and the idle time parents have while waiting before surgery
- Practice change enabled more education to be given in the same amount of time as compared to typical standard care
- Successfully maintained low number of parents needing remediation in discharge education training for their child at home
- Zero known cases at this OAS center during the project of any pediatric patients who visited an ED for post-op complication by the time the routine 24-hour follow-up phone calls were made to check in with parents regarding their child's status
- Further opportunities exist to explore level of retention of aftercare knowledge after other types of surgery using new process
- Opportunity to increase OAS center's annual revenue if change is sustain
- Opportunities for possible nurse/practitioner-led follow-up on problems and expansion of project in future for multiple inpatient and outpatient departments

Stakeholder Presentation

Timing is Everything: Discharge Teaching to Parents in Pediatric Surgery

Kate Boulder, DNP Student
Joseph Burkard, DNSc, CRNA, Faculty Advisor
Kyle Wehner, MD, Clinical Mentor
Kathleen Boyadjian, Perioperative Coordinator, Clinical Mentor

Background and Significance

- Over 13% of parents in US fail to retain adequate knowledge of child's aftercare surgical instructions (L.e. T., & colleagues, 2007)
- 8% of pediatric surgical patients required an unplanned trip back to the Emergency Dept (ED) for complications (Mahant et al, 2014)
- Pediatric surgical patients are at risk for developing hemorrhage, pain, post-operative nausea & vomiting, dehydration, or infection at the surgical site in the initial days following surgery and other invasive procedures
- Even *greater* risk for complications for a child if parents fail to understand or correctly adhere to post-operative discharge instructions
- Can lead to Emergency Dept (ED) re-admissions for these pediatric patients to treat these complications which oftentimes can be avoided

Needs Assessment

- **Discharge teaching outcomes tied to CMS financial reimbursement (Pay-for-performance), patient safety, and overall consumer satisfaction**
 - Rate of satisfaction w/ discharge teaching at the project site was 60% of consumers in Spring 2016, compared to a national average of 69% consumers, per OAS-CAHPS data collected by Centers for Medicare and Medicaid Services (CMS)
 - OAS CAHPS - Outpatient and Ambulatory Surgery Consumer Assessment of Healthcare Providers and Systems Survey
- **Discharge teaching designated as one of “top 3” objectives for both 2015 & 2016 years, per OAS site’s administrative leadership team**
 - Also frequently cited by unit leadership as an ongoing problem of focus (years of 2015, 2016, 2017)
 - This is a major priority for this OAS clinical site
 - especially w/ pediatric surgery population

Purpose/Aims

- **To improve parents’ understanding of their child’s day surgery discharge instructions following surgery at an outpatient ambulatory surgery (OAS) center**

In doing so also looking to help generate additional business revenue for the organization through pay-for-performance model reimbursement

Framework/EBP Model

- Guided by Rosswurm and Larrabee's EBP Model (1999)
 - Simple 6-step process
 - Well suited for EBP projects in outpatient clinic settings (as well as inpatient settings)

Synopsis of the Evidence

- Over 50 years of nursing literature support the nursing “golden rule” that discharge teaching begins upon admission
- Literature supports initiating the post-operative discharge teaching before surgery, rather than waiting until the end of the stay for education
- 4 cardinal strategies to meet the needs of adult learners in the perioperative setting:
 - Early initiation of instructions
 - Reinforcement of key points
 - Optimal timing of education delivery in a distraction-free environment
 - Use of 24-hour follow-up phone calls by the recovery room staff

Project Plan Process

Multi-Step Plan

- Educate OAS staff of planned unit practice change
- Carry out new process to educate parents of pediatric day surgery patients (under 18 years old) beginning in pre-op area
 - Early initiation of discharge teaching approach
 - Optimal timing to better minimize environment distractions of the adult learners
- Measure parents' satisfaction with the discharge teaching process received at the site on the day of surgery, per OAS CAHPS surveys (driven by CMS)

Timeline

EBP Model Step	Month(s) Performed	Action
Step 1: ASSESS	January/ February 2016	Identify the problem, collect baseline data/staff input, gather team
Step 2: LINK	February/March 2016	Identify potential interventions, identify outcome indicators
Step 3: SYNTHESIZE	February/March 2016	Lit Search, critique evidence, synthesize, evaluate SWOT & feasibility
Step 4: DESIGN	March - May 2016	(a) Select practice change, write proposal including identifying resources needed, process & outcome measures, plan out implementation strategy. (b) Obtain/gain IRB exempt approval/site's letter of support, communicate plan to the champions & entire ASC staff; (c) Revise plan PRN & communicate these changes to champions
Step 5: IMPLEMENT & EVALUATE	September 1, 2016 - December 31, 2016	(a) Begin pilot trial last week in August 2016; (b) Evaluate process & outcome; (c) Based on the data decide to modify, reject, or continue the change; (d) If continued, go-live 5/1/16 and carry out to end completion date for 4 months of data; (e) Begin interpreting final month of data (2/2 data scores lag time); (f) Complete evaluation of data; (g) Complete writing of the manuscript
Step 6: INTEGRATE & MAINTAIN	February - April 2017	(a) Communicate results to stakeholders & ASC staff. Continue to implement/monitor, if the change was a success, or revise; (b) Disseminate findings to rest of the organization via the hospital/ASC's joint monthly QOI meetings; (c) Disseminate to others via professional conference/academic setting presentations, & journal submission

Results

Parental Retention of Pediatric ENT Discharge Teaching at 24-Hour Follow-Up

Percent Responded "Yes Definitely" to Discharge Education Topics for Pediatric Surgical ENT Cases

Cost-Benefit Analysis

- A cost-effective implementation strategy requiring minimal training expenses for staff
- CMS reimbursement for high quality performance on OAS CAHPS scores
 - Potentially generating business revenue from pay-for-performance
 - Potentially generating additional market-share from word-of-mouth recommendations by members of the community, closely tied to consumer satisfaction
- Simple, easy process increases chance of sustainability
- Potential cost-savings in the form of patient safety and decreased re-admissions to the Emergency Department

Conclusions and Clinical Implications

Careful consideration of the learning and timing needs of the audience of adult learners

Safe and effective care by parents at home following hospital discharge essential for avoiding unnecessary post-operative complications

Demonstrate the need for an NP led follow-up for increased access to additional support and monitoring

Potential benefits of this project may include an increase in parents' satisfaction levels with the education being delivered without creating significant timing delays in the perioperative length of stay

Thank You!

References

- Berwick D., Nolan T., & Whittington J. (2008). The triple aim: care, health, and cost. *Health Affairs*, 27 (3):759-69.
- Devine, E. (1992). Effects of psychoeducational care for adult surgical patients: A meta-analysis of 191 studies. *Patient Education and Counseling*, 19(2), 129-142.
- Flanagan, J. (2009). Postoperative telephone calls: Timing is everything. *AORN Journal*, 90(1), 41-51. doi:10.1016/j.aorn.2009.04.001
- Hathaway, D. (1986). Effect of preoperative instruction on postoperative outcomes: A meta-analysis. *Nursing Research*, 35(5), 269-275. doi:10.1097/00006199-198609000-00004
- Le, T., Drolet, J., Parayno, E., Rosmus, C., & Castiglione, S. (2007). Follow-up phone calls after pediatric ambulatory surgery for tonsillectomy: What can we learn from families? *Journal of PeriAnesthesia Nursing*, 22(4), 256-264. <http://doi.org/10.1016/j.jopan.2007.05.004>
- Mahant, S., Keren, R., Localio, R., Luan, X., Song, L., Shah, S., & Srivastava, R. (2014). Variation in quality of tonsillectomy perioperative care and revisit rates in children's hospitals. *Pediatrics*, 133(2), 280-288. doi:10.1542/peds.2013-1884
- Ronco, M., Iona, L., Fabbro, C., Bulfone, G., & Palese, A. (2012). Patient education outcomes in surgery: A systematic review from 2004 to 2010. *International Journal of Evidence-Based Healthcare*, 10(4), 309-323.
- Rosswurm, M., & Larrabee, J. (1999). A model for change to evidence-based practice. *Journal of Nursing Scholarship*, 31, 317-322. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10628096>
- Stern, C., & Lockwood, C. (2005). Knowledge retention from preoperative patient information. *International Journal of Evidence-based Healthcare*, 3(3), 45-63.
- Wilson, J. (2014, January 20). 'Routine' tonsillectomies not so routine. Retrieved from <http://thechart.blogs.cnn.com>