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# Enhancing Education of Medication Side Effects to Improve Patient Outcomes

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Enhancing Education of Medication Side Effects to Improve Patient Outcomes

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### Abstract

Patient satisfaction scores regarding how effectively staff educates patients about possible side effects of new medications are not consistently above the national average. The results of these patient satisfaction scores shed light on the need for evidence-based strategies to improve a patient's perception of the medication education provided to them. The basis of the incentive to improve care is ultimately increased safety and better patient outcomes. From the Root Cause Analysis, it became apparent that a few common barriers need to be addressed, but the one most frequently reported by everyone that is the most crucial and easiest to address is the memory deficit issue. The focus of the author's project is a combination of oral instructions supplemented by the distribution of a clear, simplified leaflet of medication information. The process of change being facilitated is intended to assist the bedside nurse to perform at the optimal level of practice where quality improvement and patient satisfaction are key to better patient outcomes. Following meetings with leadership, the author created his own comprehensive but very easily understandable medication information document in the "SAID the Med" format. He felt it was important because it streamlines, simplifies, and organizes the process already used by providers when educating patients. As part of a redesigned intervention using a different document provided by the pharmacy department, pharmacy's leaflet was then used with patients as part of the education process. While initial results were affirming, the MSN student's project is a continual process of performance improvement that requires heightened interdisciplinary education between management, nursing, pharmacy, evidence-based research, and patients over an extended period of time to successfully implement and sustain the best change for the topic.

*Keywords:* medication education, side effects, performance improvement, patient satisfaction, patient outcomes, SAID the Med, interdisciplinary communication

## Enhancing Education of Medication Side Effects to Improve Patient Outcomes

### **Statement of the Problem**

The Clinical Nurse Leader (CNL) student is conducting a performance improvement project at an in-patient unit within a large, metropolitan hospital in California (MHC). Patient satisfaction scores regarding how effectively staff educates patients about possible side effects of new medications are not consistently above the national average. At MHC, interdisciplinary teams of professionals including nurses, pharmacists, and prescribers individually participate in the medication education process. Because the bedside registered nurse (RN) has the most contact with patients during the hospital stay, the emphasis of the project will be to address the bedside RN's role in improving the patients' understanding of their new medications, particularly the possible side effects. The importance of this patient-centered project lies in creating a lasting impression that the medication's side effect information was delivered in a way that patients best remember. In turn, the results are determined by a consistent increase in patient satisfaction.

### **Rationale**

Unit management advised this is a necessary area in need of improvement based on the Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS) data that were acquired from MHC management at the initiation of the project. Patient satisfaction is most notably measured using the HCAHPS scoring system from the Center for Medicare and Medicaid Services (CMS) that publicly displays results online (CMS, 2012). The results of these patient satisfaction scores shed light on the need for evidence-based strategies to improve a patient's perception of the medication education provided to them while at MHC. Additionally, with recent changes in healthcare, reimbursement of services is now intimately linked to the

quality of care that patients receive, and therefore it has become pivotal to improve standards of care in order to receive maximum reimbursement (Blumenthal, 2010).

The basis of the incentive to improve care is ultimately increased safety and better patient outcomes. In theory, reimbursement incentives will improve care, and performance improvement projects such as the author's project play a key role in that process. The Medical Dictionary (2009) defines performance improvement as an opportunity to enhance any activity in healthcare, which can include activities that increase patient satisfaction and subsequent income through reimbursement. Improvement projects aim to enhance the delivery of care, fine-tune clinical decision-making and planning, improve patient outcomes, and increase patient satisfaction.

### **A Review of the Literature**

Lack of patients recalling education of medication side effects is an issue at the MHC microsystem level. In order to understand the best approach to remedy this particular unit's situation, the CNL student conducted an extensive literature review to investigate some common findings, causes, and approaches to the topic. Results from the literature review indicate that many patients lack an understanding of medication side effects across multiple healthcare settings. This negatively impacts patients and hospitals because the uninformed patient leads to lower patient satisfaction, lower adherence to health-optimizing medications post-discharge, and other adverse consequences such as costly readmissions (Ahrens & Wirges, 2013; Borgsteede, Karapinar-Carkit, Hoffmann, Zoer, & van den Bemt, 2011; McTier, Botti, & Duke, 2013; Mutsch & Herbert, 2010; Studer, Robinson, & Cook, 2010; Tejero, 2011). Costly readmissions and patient satisfaction are particularly important as discovered by findings from Boulding, Glickman, Manary, Schulman, and Staelin (2011). They suggest a positive correlation between

patient satisfaction and lower numbers of preventable readmissions. Considering that annual costs associated with readmissions surpass 17 billion dollars per year, hospitals have a strong financial interest to ensure patients are well informed and satisfied by the education received for new medications during a hospital stay (Boulding et al., 2011). The student's investigation of the literature reveals some successful suggestions in addressing this particular issue.

While many patients leave a hospital with new medications that require lifelong adherence, patients are frequently sent home with insufficient knowledge about their new medications. It has been noted that nurses often do not spend enough time in educating their patients about important medication information. McTier et al. (2013) observed that nurses are frequently so task-oriented that they miss valuable educational opportunities to include patients in the medication process. Often, too much attention is given to administering the medication and not nearly enough to actively involving patients in the importance of what they are receiving. McTier et al. (2013) suggest an actual culture shift away from the task completion mentality is required to get patients more involved in the process of medication administration. The all-too-common nursing culture of task completion omits the engagement factor that has been found to improve patient involvement and subsequent satisfaction (Tejero, 2011).

Impactful work by Dr. Tejero (2011) examined the unique communication characteristics between a nurse and the patient, also known as the nurse-patient dyad bonding. She found that communication dynamics between the two individuals play a very powerful role in determining patient outcomes, particularly the level of satisfaction a patient feels with the services provided by the nurse. Not surprisingly, openness and warmth on behalf of the nurse led to a more positive reception by the patient, but it was the nurse's level of engagement with the patient that really impacted the outcomes. In the nurse-patient dynamic, the nurse is the person who is not ill, and

therefore is responsible for steering the plan of care that promotes the patient's healing.

Specifically, the more the nurse facilitated learning by interactively instructing the patient about their medications and treatments, the more satisfaction the patient felt with the nursing care. Dr. Tejero found that patients felt more involved in their care, which boosted levels of trust and satisfaction while increasing compliance with medication and treatment plans (Tejero, 2011).

While greater patient involvement in the education process may be a useful tactic to improving patient satisfaction, healthcare providers are frequently confused about their roles and who is responsible for educating the patient. Wilcock, Davidson, & Underwood (2015) provide an interesting perspective on who feels more qualified and responsible for providing information about medication side effects to patients. From their study, 84% of staff felt it was important to provide information about side effects, yet 60% of staff felt it was primarily the pharmacist's responsibility. The lack of consensus between nurses, pharmacists, and doctors likely contribute to information gaps and inadequate information about side effects given to patients. As a result, the process becomes even more ambiguous and disjointed to hospitalized patients who are already tired, sick, and often medicated. Their findings suggest that a concerted effort between pharmacists, nurses, and doctors can help close the information gaps that lead to deficient understandings of medication side effects among hospitalized patients (Wilcock et al., 2015).

Although more collaborative role responsibilities might improve patients' side effects knowledge, alternative strategies have been successfully implemented in other institutions. It is no surprise that patients want to be informed about the medications they are leaving a hospital with, and in some cases, they specifically tell providers how much information they want and how they prefer to receive it. Borgsteede et al. (2011) examined the informational needs of patients in a hospital and found that patients are more satisfied with their care when they

received a counseling session pertaining to their medications. The patients revealed they appreciated the opportunity to ask questions and clarify misunderstandings about expectations and side effects of their medications. The patients were also given a supplemental leaflet of basic medication information that acted as a prompt for the verbal counseling session. It should be noted that a minority of patients actually preferred no information about side effects, citing it would increase their perceived experience of the possible side effects they would otherwise not notice. The results indicate that individual preferences for medication education should be considered, but that most patients prefer as much information about side effects as possible in both oral and written formats (Borgsteede et al., 2011).

The successful written-verbal combination approach complements the findings from other research. Mutsch and Herbert (2010) propose that nurses, spending a great deal of time with a patient during the hospital stay, are the ideal contact to teach patients about their medications and to sustain the teaching process. Taking advantage of this opportunity, the nurse can provide the patient with valuable information about their medications in more than one way. Not only did they verbalize information to patients, but they also created a comprehensive handout containing relevant medication information. Through a combination of verbal and written formats given to patients prior to discharge, they successfully increased their patients' understanding of their cardiovascular medications. In fact, the post-intervention results showed a dramatic increase from 30% to 58%, providing further evidence to support this method as an effective approach in educating patients about new medications (Mutsch & Herbert, 2010).

To build on using oral instructions in addition to increasing patient involvement in the education process, another very successful method has been employed by many nurses—the “teach-back” method. The teach-back method has been shown to reduce medication errors,



assess a patient's level of knowledge to close information gaps, and to improve retention of new medication information (Kornburger, Gibson, Sadowski, Maletta, & Klingbeil, 2013). The straightforward method starts by the nurse instructing the patient about the new medication followed by having the patient repeat the information back to the nurse. By repeating back, the nurse is provided the opportunity to assess what the patient has learned and to re-teach any necessary misinformation. The back-and-forth interaction can cycle through repeatedly until the patient has effectively received the proper information. Kornburger et al. (2013) found some nurses noted time limitations as a barrier to using the method with their patients, but of those who used it, 98% agreed that it was helpful in educating their patients.

A trifold approach recommended by Studer et al. (2010) has shown additional promising results. They suggest 3 overall strategies to boosting patient satisfaction scores for understanding the side effects of new medications. First, they recommend every nurse take the time to explain what a patient is taking and why the patient is taking it. By repeatedly explaining this information during every medication pass, open dialogue is created throughout the patient's stay. The second strategy they recommend is communicating medication information during nursing shift handoffs. The incoming nurse, the outgoing nurse, and the patient are all involved in the discussion to expand the dialogue around the medication. Lastly, post-discharge phone calls with patients to follow-up on the side effect information reinforces the information acquired in the hospital while further exemplifying patient-centered care. By following these tactics, patient satisfaction scores were found to increase an average of 17% (Struder et al., 2010, pp. 180-203).

Finally, several of the above findings corroborate those of a study undertaken at another hospital. Ahrens and Wirges (2013) implemented an "Always Ask" campaign that encouraged patient participation, use of the teach-back method, and additional communications and

reminders with nurses to educate patients about medication side effects. By placing reminder sheets in a patient's admission folder, patients were prompted to "Always Ask" their nurse about new medications they are receiving. In turn, nurses were expected to employ the teach-back method in educating them. To sustain the plan, reminder flyers were placed around the unit in addition to staff emails that encouraged patient involvement in the medication education process. The campaign proved successful as post-intervention patient satisfaction scores increased from 29.7% to 77.3% (Ahrens & Wirges, 2013).

From the emerging data, the student finds the most plausible idea from the literature review for this project to be engaging the patient in the education process by providing a piece of written information of side effects to complement the RN's verbal consult. Because of the author's role as a guest on the unit with finite time to implement a successful change, he finds this approach to be the most pragmatic, feasible, and meaningful way to approach the solution to this topic. He believes these evidence-based tactics help to improve a patient's agency for improved understanding of new medication side effects and subsequent adherence to medications post-discharge from the hospital. Therefore, the focus of the author's project will be a combination of oral instructions supplemented by the distribution of a clear, simplified leaflet of medication information.

### **Cost Analysis**

The investment of implementing a leaflet of information ought to be an insignificant expense yielding a potentially tremendous amount of savings. Photocopies of paper are a minimal expenditure and are already included in the unit's cost of operations. Also, the time that nurses would spend educating patients is presumed to already be part of the nursing function, incurring no additional costs on that front.

However, readmissions related to patients not complying with medication regimens could hypothetically result in exorbitant financial costs. For instance, if only 1 patient is readmitted for 3 days at \$2500 per day, it would be incredibly easy to compound expenses of preventable readmissions and observe how quickly they can add up. Further, unplanned readmissions within 30 days of discharge are not reimbursed by CMS, contributing to burdensome costs of healthcare expenses that MHC would be responsible for absorbing (Jencks, Williams, & Coleman, 2009).

### **Project Overview and Methodology**

#### **Microsystem Assessment**

Patient care at the microsystem level is a complex, human-driven process consisting of several dynamic elements. Five characteristics comprise the unique interdisciplinary approach required to successfully and efficiently treat the unit's population of patients. This process, individually assessed through use of the 5 P's, can be analyzed to gain a deeper understanding of the microsystem's structure and function (Nelson, Batalden, & Godfrey, 2007, pp.124-126).

**Purpose.** The unit under proposed change aims to deliver patient-centered nursing care that promotes optimal health among its patients. The intention is to assist patients on their path to wellness while recovering from health complications. The system exists to create healthier, more informed patients who leave the hospital with improved health status and the ability to take charge in understanding the changes needed to sustain greater well being. This includes sufficient understanding of new medications received since being admitted to the hospital.

**Patients.** The majority of the patients within the microsystem being addressed are primarily between 50 and 80 years of age and roughly equal in the number of male and female patients. The unit provides optimal care for up to 28 patients arriving 1 to 2 days post-surgery

and intensive care units and will remain on the unit for 5 to 7 days prior to discharge from the hospital.

**Professionals.** The clinical care is provided by a cohesive staff of registered nurses (RNs) who coordinate the care for up to 4 patients per RN. In addition to specialists and surgeons, 1 or 2 nursing assistants and rotating respiratory therapists, physical therapists, and a discharge pharmacist collaborate with the RNs throughout the patient's stay. The entire nursing team is guided by 2 assistant nurse managers and 1 unit manager who oversee the workflow of nursing personnel and patient care for the unit. By embodying genuine compassion and empathy while supporting colleagues to continually strive and excel as nursing professionals, the staff can adhere to principles of integrity that support the process of achieving optimal health and well-being among the patients. Further, all of these professionals in addition to the patients and their families are key stakeholders for success of the project.

**Process.** For medication administration, each nurse interviewed takes between 10 and 20 minutes to gather medication from the Pyxis unit and administer the medication to an individual patient, depending on the number of medications the patient is to receive. It is at this time the education of side effects is usually provided. Most administration is done around 9:00 a.m. and again around 9:00 p.m. During discharge, additional side effect information is given by the RN and again by a pharmacist, providing 2 additional rounds of education about new medications. Pharmacists also provide extensive, often complex and thorough literature that accompanies each medication the patient will be leaving with.

**Patterns.** During the process, minimal outside interruptions occurred during the medication pass and education. However, some patients were found to be unfocused, drowsy, or distracted. During discharge education, patients were often anxious to leave and therefore not

genuinely interested in the volume of information being delivered to them. Finally, there was little to no education consensus or communication observed between the information provided by the RN compared to what information was provided by the discharge pharmacist.

### **Data Assessment and Root Cause Analysis**

To investigate the tentative cause of why the patient satisfaction scores are not consistently above the national benchmark average, the Master of Science in Nursing (MSN) candidate conducted a Root Cause Analysis (RCA). Data collection came from multiple sources including management, observations, and interviews with staff and patients.

The MSN candidate interviewed 10 patients, and prevalent trends of data quickly emerged. Every patient the student interviewed was given new medications since being admitted to the hospital, and all but 1 patient remembers the nurse telling him or her about the side effects of the new medications at the time of each medication administration. Despite each nurse's education efforts, very few patients were able to recall the information during the MSN candidate's interview. When asked why they might not remember the information, responses varied from information overload, inability to focus [due to pain medication], not understanding the information, or simply not able to remember "for whatever reason" presumed by the author to be the inability to focus (See Appendix A).

The student then discussed the side effects information with the patients and asked them to repeat the information back to him. In follow-up interviews the next day, all patients remembered the previous day's interview and discussion but were not necessarily able to recall precise side effects information that was discussed. The student then asked patients what is helpful in trying to remember the new information. Every patient said verbal teaching is helpful, but a simple handout for reference would be of valuable assistance as well (See Appendix A).

From interviewing 10 staff nurses and 2 pharmacists, similar trends to the student's observations from the patient interviews emerged. Every nurse said the side effects information of new medications is explained during medication administration, but there exist common barriers to patients remembering the information. Nurses explained the patients are often heavily medicated on narcotics, are anxious, or are unable to keep track of so much complex information given to them. Essentially, it is difficult for patients to remember excessive information when they cannot focus. Two pharmacists agreed with the notion of information overload while patients are altered from pain medications and added they are often anxious to leave the hospital on discharge day (See Appendix B).

The student asked staff if using the teach-back method is helpful, or what else might be of benefit to help improve the process. While some nurses said teach-back is helpful, they feel it is not realistic to have the time to use teach-back for so much information that patients are likely to forget anyway. A common suggestion by every nurse included the use of a simple, low-literacy level handout to distribute to patients as a reference while verbalizing information (See appendix B).

From the patient and staff interviews and from the student's own observations, it became evident there is a memory encoding issue. Some important barriers to be mentioned include time constraints and the multiple medications to administer in addition to tasks that must be completed in such a short timeframe. Other noted obstacles include an excessive volume of information and the use of professional jargon of medications and explanations. Also, differing role responsibilities between interdisciplinary professionals may contribute to information gaps in the process. From the RCA, it became apparent that a few common barriers need to be addressed, but the one most frequently reported by everyone that is the most crucial and easiest

to address is the memory deficit issue. The author proposes this be addressed through the use of a simple written handout of information to be used as an impetus to discussing the most detrimental side effects of a patient's new medications. (See Appendix C).

### **Timeline**

The following is the timeline of various components of the MSN student's project (See Appendix D):

Microsystem Assessment: September 8-September 25

Literature Review: September 23-October 19

Data Collection and Root Cause Analysis: October 6-October 14 (intermittent)

Introduce Handout to Staff and Management: November 6-November 11 (intermittent)

Distribution of Handout: November 6-*Indefinite* (continuous)

Proposed Re-evaluation for Sustained Change: November 14- *Indefinite* (intermittent)

### **Expected Results**

The purpose of the project is to evaluate current medication education processes on the unit. Through completion of an in-depth understanding of the practices, the MSN student expects to determine why the patient satisfaction scores are not consistently above the national average. The student hopes to implement a sustained change to the education process that will address the area in need of improvement.

The ideal plan is to ultimately create a culture change of medication education using the teach-back method based on the student author's "SAID the Med" concept accompanied by simple reading handouts. The author created his own acronym to streamline the medication education process for healthcare professionals to consider using during medication education. Re-organizing components already addressed in the education process, he put them into an

impressionable, 4-step profile to help organize and simplify some basic subjects of a medication's information. Similar to "SBAR" communication for consolidating important elements of communication between healthcare providers, the "SAID the Med" model uses a systematic acronym to accomplish the purpose of concisely relaying relevant information when teaching patients about medications (See Appendix E).

### **The Clinical Nurse Leader and Nursing Relevance**

Porter-O'Grady, Clark, and Wiggins (2010) have explored how the current nursing profession has become rigid, based on outdated processes unwilling to adapt to necessary changes that accompany a changing world. As a result, the relatively new role of the Clinical Nurse Leader (CNL) has emerged and, as an agent of change, the CNL is empowered to implement his or her specialized training to support nurses, raise standards of nursing care, and increase patient safety while lowering potential risks and financial burdens (Porter-O'Grady et al., 2010). The CNL is equipped to employ evidence-based research to modify ineffective processes at the microsystem level (Bartels & Bednash, 2005). Among many CNL competencies, this may involve improving patient and staff education processes by laterally weaving various professional roles of the organization together (AACN, 2013).

For the patient to have a greater understanding of their medications means the patient is not only taking a more proactive role in their path to wellness, but they know precautions that might lead to adverse consequences resulting from inadequate knowledge about new medications. It is about teaching nurses to not look at distributing medications in the same, antiquated ways. Rather it is about deepening perspectives to look at the long-term benefits of preventive approaches in providing greater meaning to a patient's new medication regiment.



In today's healthcare system, nurses are a strong and powerful force on the frontlines of the performance improvement world. Individually and collectively, they are responsible for governing their own best practice to promote optimal patient healing and prevent poor patient outcomes. This requires a tremendous amount of orchestration while playing multiple professional roles coupled with never ending tasks to be safely completed in a short amount of time. The process of change being facilitated is intended to assist the bedside nurse to perform at the optimal level of practice where quality improvement and patient satisfaction are key to better patient outcomes.

### **Summary Report**

The student's observations matched the staff and patient perspectives that excessive information is given to patients who are in an unfocused state-of-mind and are not necessarily capable of remembering important details of medication education, especially the side effects information. Through a literature review, it was discovered that this topic has been addressed across the globe.

Research indicates that moving from a task-oriented approach to greater patient engagement in education by nursing staff improves patient trust in the nurse and, in turn, increases patient satisfaction and medication adherence (McTier et al., 2013; Tejero, 2011). Also, improved communication and role delineation among different healthcare providers has been found to boost patient confidence and satisfaction about new medication education (Wilcock et al., 2015). Meanwhile, promising tactics such as providing oral and written information to patients has been shown to boost adherence to medications post-discharge (Borgsteede et al., 2011; Mutsch & Herbert, 2010). Finally, combining a teach-back method during the oral consult accompanied by a written handout has repeatedly shown positive results

in creating a lasting impression and improved patient satisfaction about new medication information (Ahrens & Wirges, 2013; Kornburger et al., 2013; Struder et al., 2010).

Through the literature review findings and input from patients and staff, the author found it best to provide a simple written reference to patients during a verbal discussion of side effects. While MHC's pharmacy did not approve the author's SAID handout, they did provide an approved list of common hospital-wide medication side effects. The student consolidated the list down to a half-page of medications relevant to the unit, omitting less pertinent medication information not pertaining to the unit under study. To protect MHC's anonymity at request of management, the final handout cannot be used as an appendix to this paper. Suffice it to say, the handout is a brief list of common new medications that patients receive, and it includes common side and adverse effects.

The initial feedback from patients whom the student used this approach with was affirming as they found it useful to have the important information in front of them as it was explained to them during the actual medication pass. After meeting with RNs on the unit to explain the use of the simple handouts during medication administration, supportive feedback was receptive and included appreciation for the use of the handout to make the education process simpler and more effective. The student also met with the unit management and was provided with enthusiastic feedback for the use of the simple, consolidated handout he created from the pharmacy department's approval. Management plans to laminate the form and attach it to a binder that is distributed to patients on the unit. All feedback of the proposed change being a worthwhile implementation prompted hope that this method might be a successful means of improving patient satisfaction about the education they receive regarding new medication side effects.

### **Limitations, Redesign of Process, and Recommendations**

The project conducted by the CNL candidate is not without limitations. Although very prominent themes quickly emerged among those interviewed, the author recognizes a greater number of patient and staff interviews would cast a wider net for data collection validity.

Another unfortunate barrier encountered is the time limitation the student experienced on MHC's unit. Patient satisfaction scores are a poignant mark of the plan's success, and the student's semester project ended prior to release of those scores. Finally, with additional opportunities to re-evaluate in 6-months' time, the success of the small test of change would be re-examined to consider necessary modifications to the process that might better sustain the proposed change.

On a different note, following meetings with leadership, the author created his own comprehensive but very easily understandable medication information document in the SAID format (See Appendix E). He felt it was important because it streamlines, simplifies, and organizes the process already used by providers when educating patients. However, as part of the approval process the student was asked to have the SAID form approved by the pharmacy department. Pharmacy then informed him their own document was created, and the student was strongly advised to use their document instead. As part of the redesigned intervention using the pharmacy document, their leaflet was then used with patients as part of the education process.

Given more time, the student would have conducted an extensive evaluation of pre- and post-interventions using the document provided by the pharmacy department. He would have advocated for the "SAID the Med" document to be compared to the pharmacy document by having patients receive both and describe which they found to be more meaningful.

Unfortunately time did not permit that course of direction, but that might be useful for further study to evaluate what actually works better for patients.

### **Conclusion**

Through the redesign of the author's original plan, he learned more about the importance of organizational support. He realized that unit leadership liked the SAID idea, but there was a shortcoming in communication between nursing and pharmacy as another recommended document already existed but was not in use on the unit. It was later brought to the student's attention that previous CNL students had examined the topic being addressed for the project. This led the author to the conclusion that this is a persistent problem that can only be addressed by a multidisciplinary communication approach, an ideal role for a CNL. This issue is a process of performance improvement that requires heightened interdisciplinary education between management, nursing, pharmacy, evidence-based research, and patients over an extended period of time to successfully implement and sustain the optimal change for the topic.

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## Appendix A

## Patient Interviews

- 1) Patient said RN verbalized new medication side effects during every medication pass:  
9/10
- 2) Patient able to recall 100% of side effects: 1/10
- 3) Patient able to recall some side effects: 8/10
- 4) Patient able to recall 0% of side effects: 1/10
- 5) Patient unable to recall side effects because of the following:
  - a. Inability to focus: 7/10
  - b. Information overload: 8/10
  - c. Too complex: 2/10
- 6) Patient prefers verbal information: 10/10
- 7) Patient prefers written information: 10/10

## Appendix B

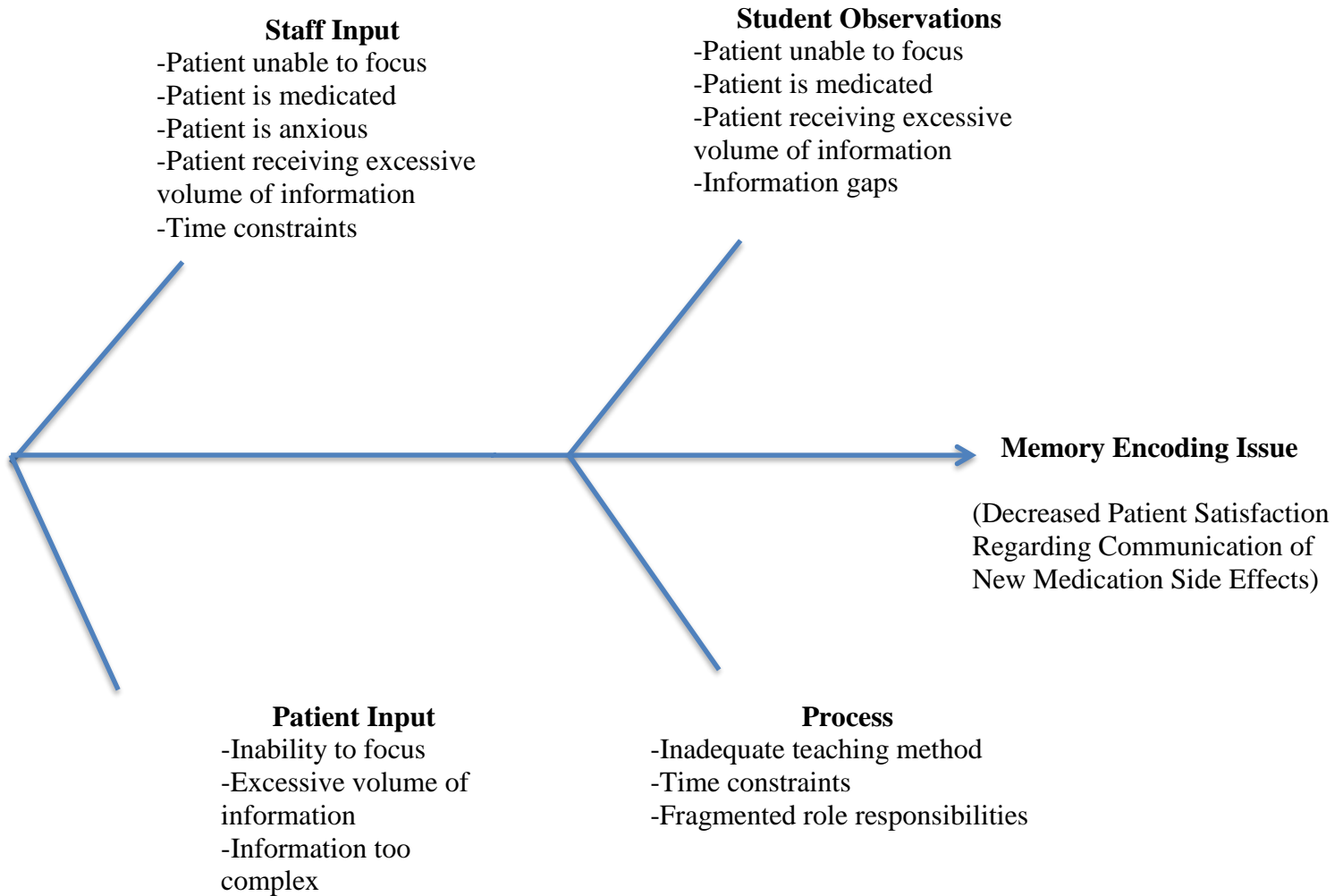
## Staff Interviews

- 1) Staff observations why patients are unable to recall side effects:
  - a. Patient is unable to focus: 12/12
  - b. Patient is receiving too much information to remember: 12/12
  - c. Information is too complex: 6/12
- 2) Suggestions for helping patients retain the information:
  - a. Verbalize the information: 12/12
  - b. Simple handout of information: 12/12
- 3) Agree that teach-back could be useful: 8/12
- 4) Reasons for not wanting to use teach-back:
  - a. Patient will forget anyway: 4/12
  - b. Time limitation: 5/12



Appendix C

Root Cause Analysis





## Appendix E

## “SAID the Med” Description and Example

The “SAID the Med” model uses an acronym to accomplish the purpose of concisely relaying relevant information when teaching patients about medications as follows:

- S= side effects
- A= action
- I= indication
- D= dosage schedule

The following example illustrates how “SAID the Med” might be used for a particular medication, which can be customized to meet each individualized patient’s needs:

## Metoprolol (Beta-Blocker)

- S= dizziness, fatigue (\*do not take if pulse is less than 60 beats per minute)
- A= slows heart rate, regulates heart rate
- I= high blood pressure, abnormal heart rhythms
- D= 12.5 mg every morning as prescribed

*\*This example is NOT all-inclusive. It is a short, abbreviated reference for review. Please refer to handouts from your pharmacist for more information, including the complete list of side effects and warnings.*



# Enhancing Education of Medication Side Effects to Improve Patient Outcomes



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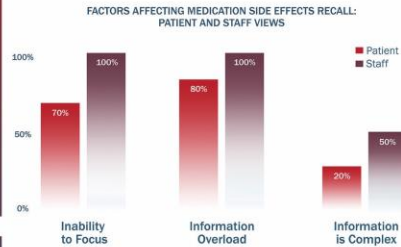
## PROBLEM

The Clinical Nurse Leader (CNL) student is conducting a performance improvement project where patient satisfaction scores regarding how effectively staff educates patients about possible side effects of new medications are not consistently above the national average.

The results of these patient satisfaction scores shed light on the need for evidence-based strategies to improve a patient's perception of the medication education provided. An interdisciplinary team of professionals individually participate in the medication education process. The importance of this patient-centered project lies in creating a lasting impression that the medication's side effect information was delivered in a way that patients best remember.

The basis of the incentive to improve care is ultimately increased safety and better patient outcomes. The author's improvement project aims to enhance the delivery of care, fine-tune clinical planning, improve patient outcomes, and increase patient satisfaction.

## DATA ASSESSMENT

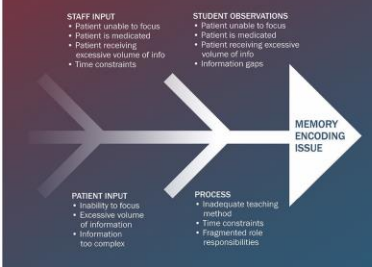


## SAID THE MED

The "SAID the Med" model uses an acronym to accomplish the purpose of concisely relaying relevant information when teaching patients about medications as follows:

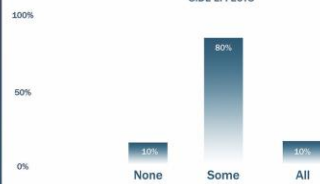
- S= side effects
  - A= action
  - I= indication
  - D= dosage schedule
- Example: Metoprolol (Beta Blocker)
- S= dizziness, fatigue (\*do not take if pulse is less than 60 beats per minute)
  - A= slows heart rate, regulates heart rate
  - I= high blood pressure, abnormal heart rhythms
  - D= 12.5 mg every morning as prescribed

## ROOT CAUSE ANALYSIS



The author appreciates the hospital unit's management and staff, and he is grateful for his preceptor's assistance. He would especially like to thank Dr. Danijela Pavlic and the University of San Francisco School of Nursing faculty and staff and his fellow colleagues for their dedication, instruction, and guidance throughout the CNL program. Contact info: [kylewoolley@gmail.com](mailto:kylewoolley@gmail.com)

## PATIENT ABILITY TO RECALL MEDICATION SIDE EFFECTS



- During medication administration, written information not routinely provided
- 100% of patients, staff indicated simple written handout would be helpful

## INTERVENTION AND PRELIMINARY RESULTS

- Medication education handout used to complement verbal consultation during medication administration, attached to binder patients receive when admitted to unit
- Positive feedback from staff, patients regarding handout
- Future patient satisfaction scores to indicate successful change

## CONCLUSION

Through the redesign of the author's original plan, he learned more about the importance of organizational support. He realized that unit leadership liked the SAID idea, but there was a shortcoming in communication between nursing and pharmacy as another recommended document already existed but was not in use on the unit.

This led the author to the conclusion that this is a persistent problem that can only be addressed by a multidisciplinary communication approach. This issue is a process of performance improvement that requires heightened interdisciplinary education between management, nursing, pharmacy, evidence-based research, and patients over an extended period of time to successfully implement and sustain the optimal change.