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Final Manuscript

A Follow-Up Phone Call to Post-Operative Patients Using the Five A's

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Abstract

Background: The 2016 National Survey on Drug Use and Health reported that 53 percent of people that misused pain relievers in the past year received them from a friend or relative. The NIDA describes that from 2002 to 2008 that drug abuse in service members went

from 2% to 11%. Often patients are initially prescribed and introduced to opioid medication for acute pain. One such circumstance is in the perioperative period that could provide an opportunity to promote opioid-sparing techniques to reduce the exposure to opioids.

Purpose of Project: To assess discharge medication characteristics and reinforce discharge medication instructions using the 5 A's approach.

Evidenced Based Interventions: Post-surgical patients were contacted to assess for patient satisfaction of pain management, medications used, and if they had left-over medication and if they knew how to dispose of them. After completing the questionnaire, the DNP student implemented the 5 A's (Assess, Advise, Agree, Assist, and Arrange) to guide the patient and answer any questions.

Evaluation/Results: The results obtained showed that patients had a high satisfaction rate of pain management and that patient were well educated on pain management modalities other than opioids. Of the 100% of patients that were sent home with opioid pain medication 60% had left over opioids and 100% of them were not educated on how to dispose of them. It is this student's recommendation to have proper medication disposal instructions made available to post-surgical patients.

A Follow-Up Phone Call to Post-Operative Patients Using the Five A's

Description of the Clinical Problem

Opioid involved-deaths have reached epidemic proportions in America, claiming 130 lives each day (Center for Disease Control and Prevention[CDC], 2018). One of the driving factors of this is the abuse of prescribed opioids. Since 1999 the amount of overdoses due to

opioid prescription drugs has quadrupled (CDC, 2018). The 2016 National Survey on Drug Use and Health reported that 53 percent of people that misused pain relievers in the past year received them from a friend or relative (Substance Abuse and Mental Health Services Administration, 2018). One report stated that this epidemic is costing upwards of 78.5 billion dollars a year due to healthcare, treatment, criminal involvement, and loss of productivity (Florence, Luo, Xu, & Zhou, 2016). Providers have the responsibility to manage pain appropriately but also implement protocols that keep patients safe and knowledgeable on the risks of opioid medication.

Healthy People 2020 addressed this problem when they made one of the goals to reduce nonmedical use of pain relievers. (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [HHS ODPHP], 2019). These objectives fall under the substance abuse topic that aims to reduce substance abuse to protect the safety, health, and quality of life of all people. This goal goes on to describe potential emerging issues such as adolescent abuse of prescription drugs and how military members returning from the Afghanistan and Iraq wars may be more at risk for substance abuse disorders (HHS ODPHP, 2019). The Healthy People initiative references the National Institutes of Health, National Institute on Drug Abuse (NIDA) data to convey the importance of this topic. The NIDA describes that the unique military culture of zero tolerance policies has shown to keep illicit drug use among military members lower than civilians, however abuse of prescription drugs went from 2 percent in 2002 to 11 percent of service members in 2008. Military physicians have quadrupled their pain relievers prescriptions between 2001 and 2009, most likely due to combat related injuries and strains caused by multiple deployments (NIDA, 2019). One setting that introduces opioid pain medication to patients is during acute surgical procedures.

At Naval Medical Center San Diego (NMCS D), the Anesthesia Department has implemented an enhanced recovery after surgery (ERAS) protocol that promotes opioid-sparing analgesia in an attempt to target different pain receptors and pathways with non-opioid analgesics to prevent the adverse effects of opioid consumptions. Due to an increase in research suggesting that larger amounts of opioids received during inpatient stay results in higher use of opioids after discharge, more hospitals are implementing these protocols (Brandal et al., 2017). This doctorate of nursing practice (DNP) student implemented a follow-up phone call to patients that were sent home from NMCS D following a surgical procedure to assess opioid use characteristics post-discharge and to utilize the 5 A's Behavior Change Model (Assess, Advise, Agree, Assist, and Arrange) to evaluate their knowledge on medication use and support them in safe and proper use of post-discharge pain medication. After obtaining this information the data was then shared with members on the project and recommendations were given.

Description of EBP project, Facilitators & Barriers

To better serve and protect our post-operative patients this DNP student implemented a follow-up phone call to patients 8 weeks postoperatively. In this phone call, proper medication use and disposal was reinforced by using the 5 A's Behavior Change Model counseling. The phone call also allowed for pain medication consumption characteristics to be assessed and assessment of knowledge on medication disposal using a 9-question survey. The facilitators of this project were the support of faculty lead Dr. Joseph Burkard and the Anesthesia Department Research Director Dr. Eugenio Lujan. Also, due to the project being inexpensive and not requiring significant manpower the student was allowed to easily implement her role in the team. The potential barriers this project could have faced were lack of support from the needed

stakeholders and communication barriers caused by patients either not answering their phone's or being unwilling to answer survey questions.

EBP Model

The Iowa Model of Evidence-Based Practice to Promote Quality Health Care is a multiphase change process that has multiple feedback loops that allows nurses and other clinicians to perform and promote the non-linear application of evidence-based practice application to improve patient outcomes (Melnyk & Fineout-Overholt, 2015). The model resembles the steps of the scientific process and is popular for its ease of use by multidisciplinary teams (Loyd, D'Errico, & Bristol 2016). This was a beneficial model as the project presented involved the Anesthesia Department, faculty at the University of San Diego, and the DNP student. This model also utilizes the use of a pilot study step which was implemented in a prior phase of the multi-stepped project. The model also emphasizes the importance of data and result dissemination, to which this project aimed educate staff on medication characteristics and knowledge deficits in patients.

Proposed Evidence-based Solutions

Review of the literature was done multiple times over a year span allowing for adjustment in the narrowing of the search to reach the appropriate content of literature on opioid consumption characteristics and perioperative patient education. The search databases that were utilized were CINAHL, PubMed, and Cochrane and the key words used were: opioid, epidemic, medication, follow-up, and 5 A's. After applying the Medical Subject Headings (MeSH) with the terms "education" and "analgesic, opioid" key articles were discovered. 16 articles were

reviewed over this time span, with 18 articles being chosen to support the intervention of the proposed DNP students project. The articles were ranked using the John Hopkins Evidence hierarchy yielding two Level I, two Level III, nine Level IV's, and five Level V.

The literature shows that over prescribing has a strong association with excessive opioid consumption after surgery (Brandal et al., 2017). One way to combat this is by obtaining patient-reported opioid consumption to cultivate better prescribing standards. One article analyzed 2392 patients from over 12 different surgical procedures and found that opioids were prescribed in excess, seen by the alarming number of left over medication, and that there was a correlation between quantity prescribed and higher rates of consumption (Howard, 2019). The recommendation of the article is to obtain more information on medication consumption to possibly further the idea of tailored postoperative opioid prescribing order sets (Howard, 2019). One study that implemented an ERAS protocol concluded that even when using an opioid –free analgesic technique on perioperative patients, the impact will not be seen till discharge medication prescription behaviors are altered (Brandal et al., 2017). The study found that to ultimately create protocolized opioid orders at discharge, research would need to be done to assess the amount and duration of opioid consumption postoperatively (Brandal et al., 2017).

Surgery and hospital stays can be an overwhelming time for a patient, which can result in insufficient amount of knowledge obtained during discharge. A study done in 2019 found that when patients were educated properly on opioid use, patients took opioids for fewer postoperative days (Farley et al., 2019). One article found that when contacting patients after discharge, many of the patients still had questions about their medication and instructions (Stroud, Adunlin, & Skelley, 2019). The study identified 32% of patients still had questions even when counseled in the hospital, the results stress the importance of implementing a post-

discharge follow-up phone call addressing questions and concerns the patient may have (Stroud, Adunlin, & Skelley, 2019). The 5 A's Behavior Change Model is a patient centered counseling tool to encourage certain behavioral habits (Welzel et al., 2018). One article that used the 5 A's Model for weight management strategies, found that its principals engaged patients to be more motivated for change (Welzel et al., 2018). One article documented its successful use in multiple healthy behavior modification such as smoking cessation, weight management, physical activity, and alcohol moderation (Dosh et al., 2005).

Research suggests providers could reduce quantity of opioid medications prescribed and still have adequate pain control but providers are not being advised on what patient's post-discharge pain medication consumption characteristics are (Hasak et al., 2018). Due to the impact of the addition of pain as the fifth vital sign and litigation against providers for undertreating pain, and reimbursement models based on patient satisfaction there is a culture of over prescribing pain medication (Kumar et al., 2017). One study found the total of prescribed pills in their population was 4480 with 1628 being left over on post-operative day(POD) 90 with an overall average of 13 pills per patient being unused (Kumar et al., 2017). Reducing the amount prescribed opioids would impact the excessive number of opioid pills in the US. (Kumar et al., 2017). Farley et al. implemented a non-randomized cohort study that took three groups of patients that were getting ACL repair surgery and gave one group 30 Percocet pills at discharge, another group received 50 Percocet pills at discharge, and one group received 30 Percocet pills plus opioid use and non-pharmaceutical pain intervention education. Their results showed that the group that was prescribed less opioids at discharge and received education, took significantly less opioids post-discharge (Farley et al., 2019).

More research is needed to identify strategies to increase medication disposal awareness. As mentioned above patients are being over prescribed opioid pain medication leading to excess pills in the household that pose a serious threat to the patient and anyone living or visiting the home. One way to combat this problem would be to educate patients on ways to dispose of their unused opioid medication. The CDC released guidelines on prescribing opioid medications for chronic pain and advise prescribing providers to discuss the importance of safe disposal options with their patients, but failed to identify specific strategies in providing this education (Dowell, Haegerich, Chou, 2016). One national survey of 1032 people, of whom all had used opioids in the previous year, found that 45% of them received no information on proper disposal and concluded that it is imperative for more research to be done to find effective strategies to educate this at-risk population (Kennedy-Hendricks et al., 2016). Multiple studies found that an effective method was distributing an educational pamphlet to patients when discharged with opioid pain medication. A randomized controlled trial involving dental surgeries had a 22% absolute increase in the number of patients who either disposed or had intent to dispose of unused opioids (Maughan et al., 2016). One prospective study found that opioid disposal, after an educational pamphlet was dispersed, was fivefold greater than before (Rose, Sakai, Argue, Froehlich, & Tang, 2016).

Project Development and Implementation Timelines

Table 1

Project Development and Implementation Timeline

| Intervention/Activities | Persons Involved | Estimated Time Frame |
|---|---|----------------------|
| Proposal of project to Naval Medical Center San Diego Anesthesia Team | DNP Student Anesthesia Research Team | APR 2018 |
| Obtain letter of support from Research Lead | DNP Student | APR 2018 |

| | | |
|---|-----------------------------------|--------------|
| | Anesthesia Research Team | |
| NMCSD IRB submission and acceptance | Anesthesia Research Team | APR 2018 |
| USD IRB submission and acceptance | DNP Student Dr. Joseph Burkard | JUL 2019 |
| Obtained surgical schedule and contact information | DNP Student | AUG 2019 |
| Implement follow-up phone call | DNP Student | AUG-SEP 2019 |
| Clean data and assert results | DNP Student | DEC 2019 |
| Dissemination of results at DNP Presentation Day | DNP Student | MAR 2020 |
| Submission and acceptance of manuscript for publication | DNP Student Dr. Joseph Burkard | APR 2020 |
| Dissemination of results to stakeholders | DNP Student | APR 2019 |
| Graduate | DNP Student | MAY 2020 |

Project Outcomes

The short-term outcomes for this project was to obtain support from the anesthesia research team, to contact patients in a follow-up phone call to assess pain medication consumption characteristics and provide counseling about proper pain medication use using the 5 A's Behavior Change Model. The DNP student then created a 9-question survey to obtain the characteristics and became knowledgeable on use of the 5 A's Model. After receiving approval on a 10-question survey, the DNP student was given access to the surgical schedule and patient contact information.

The long-term outcomes of this project were to contact 25 patients that had received surgery eight weeks prior and have them complete the survey and assist and advise them in proper pain medication consumption and disposal. A stakeholders' presentation of the project's

results and potential practice change recommendations to increase patient safety was presented on February 3rd 2020.

Project Approval

This project required multiple approval processes involving stakeholders' approval, IRB approval at Naval Medical Center San Diego, and IRB approval at University of San Diego. To obtain stakeholder approval the DNP student reached out to the Anesthesia Research team and discussed the importance of obtaining data on post-surgical patient pain medication consumption characteristics. IRB approval at NMCS D was given and the project was considered exempt. Once IRB was established at NMCS D the DNP student then applied and received IRB approval at University of San Diego with assistance from her faculty lead, DR Joseph Burkard.

Project Impact

The overall goal of this project was to increase knowledge on post-surgical medication consumption characteristics and educate patients on safe opioid medication consumption and disposal while reinforcing proper use of pain relieving medication. Another goal of the DNP student was to address the prescriber's knowledge gap in how much their post-surgical patients were taking of opioid pain medication and to identify any potential areas for process improvements. The impact could be seen by less opioid medication being prescribed after a surgical procedure, proper and safe medication consumption by patients and more people understanding the risk of leaving unused opioid medication in their homes.

Stakeholder Identification

It required stakeholder buy-in from faculty at University of San Diego and the Anesthesia Department at NMCS D. Process stakeholder for this evidence based project were the DNP

student's faculty lead, Dr. Joseph Burkard. The process stakeholder required updates on the progress of the project as well as status of data collection. It was beneficial to receive feedback from the stakeholder along the way to assess for the need for modifications. Since the stakeholder works in multiple locations and have a busy schedule, communication via email bi-monthly and when stages were completed was implemented as the primary mode of communication unless more was necessary. The DNP student also met with the faculty lead twice a semester to go over progress in person.

The outcome stakeholders that were more interested in the projects final outcome versus progress of the stages of the EBP was the Anesthesia Department. While this department was interested in progress they were more interested in the final evaluation of the data. Once the Anesthesia Department gave the approval to contact patients with the objective of obtaining medication consumption characteristics and implementing the 5 A's Behavior Change Model, their role was minimal. The lead investigator of the project and his colleagues were presented the results and how the results can improve their practice during a stakeholder presentation by the DNP student.

Process Indicator Data Monitoring

The first process indicator that was monitored was the number of patients that filled out the 9-question survey and received counseling on medication use and disposal. To assess the first indicator, the DNP student set a desired number of patients to be contacted to 25, that would receive counseling and respond to the survey questions via phone follow-up successfully. The DNP student would have to reach out to more patients if contact was not established with all the 25 patients that were initially collected. The second process indicator was if during the inpatient stay was an opioid sparing ERAS pathway followed. This was collected to assess for

successfulness of the prior stages of the multi-step project. Finally, the last process indicator was what pain medication was the patient discharged with. This allowed the DNP student to ask specific questions about their pain medication consumption. By collecting data on these indicators, the DNP student will be able to assess the final results of data obtained more successfully.

Outcome Indicator Data Monitoring

The first set of outcome indicators that were monitored were the patient's responses to the questions asked by the DNP student during the follow-up phone call. The following was collected: pain management satisfaction in the hospital, pain management satisfaction after discharge, use of non-pharmaceutical pain relievers once discharged, use of non-opioid pain medication once discharged, use of opioids once discharged, if refills were needed, were they done taking opioid pain relievers, did they have left over opioid pain medication, were they educated on medication disposal, and did they dispose of unused opioid medication. The second outcome indicator collected was the patient's knowledge and need for reinforcement of proper pain medication use. By collecting this data, the DNP student was able to assess the pain medication consumption characteristics of the 25 patients contacted and evaluate a need for follow-up counseling of pain medication use. These follow-up phone calls were performed over a month period at NMCSD, once weekly capturing a set of patients that were 8 weeks post-operative.

Final Results

As desired 25 patients were contacted that varied in age, sex, and type of surgery. Attempt to contact patients via phone call was made three times on different days, but if no contact was established the patient was removed from the list. Due to this 41 patients were

reached out to with 25 being successfully contacted. 100% of patients contacted had an opioid-sparing pathway followed during their perioperative period, which demonstrated adherence to utilizing the ERAS pathway at NMCS D. To better direct the conversation about discharge medication use with the patients, the DNP collected information on their discharge pain medication. 100% of the 25 patients were discharged with an opioid pain medication and a non-opioid pain medication. Demographics of patients and data pulled from charts is shown in table 2.

Table 2
Patient Information Obtained from Patient Charts

| Service | |
|--------------------------------------|------|
| Ortho | 14 |
| Bariatric | 3 |
| Spine | 1 |
| Gyn | 6 |
| Gen-Surg | 1 |
| Age | |
| Over 50 | 15 |
| Under 50 | 10 |
| Sex | |
| Female | 19 |
| Male | 6 |
| ERAS Followed | |
| Yes | 100% |
| No | 0% |
| Opioid Prescription at Discharge | |
| Yes | 100% |
| No | 0% |
| Non-Opioid Prescription at Discharge | |
| Yes | 100% |
| No | 0% |

The data that was collected during the follow-up phone calls was organized onto an excel spread sheet to allow for convenient analyzation and creation of Table 3 and supporting figures. A Likert scale was utilized for the first two questions that had four responses, poor, fair, good, and excellent. The remaining 8 questions required only a yes or no response. Percentages of the patient's responses were used to represent the data. The first question that addressed pain management satisfaction during hospital stay resulted in 84% of patients reporting "excellent" and the remaining 16% reporting "good". The following question regarding pain management with discharge medication found 72% reporting "excellent" with the remaining 28% reporting "good". This shows a positive response to pain management during their hospital stay and high satisfaction with the pain medication that they were sent home with. The next four questions addressed pain relief measures taken and medication consumption. Results showed that 88% of patients used non-pharmaceutical measures to reduce pain, most mentioned was ice and physical therapy. 96% patients utilized non-opioid medication and 80% patients used the opioid medication they were sent home with. It should be noted that the one patient that didn't utilize non-opioid medication required no pain medication after discharge. The results showed that a high percentage of patients understood the importance of implementing other forms of pain relieving techniques and medication in conjunction with their opioid medication. The last four questions addressed unused medication and disposal knowledge. Of the 25 patients, 18 were done taking their opioid pain medication and of the 18 patients, 15 had left over medication. These results supported the research found that many patients have left over opioid pain medication putting patients and their family at risk of misuse and that providers are over prescribing. When asked if they were educated on medication disposal of unused medication 0%

of the patients reported being instructed on proper disposal and of the 18 patients with unused medication only 1 had disposed of it.

Table 3

Data Collected in Follow-Up Phone Call

| Pain Management Satisfaction in Hospital | | | |
|--|------|------|-----------|
| Poor | Fair | Good | Excellent |
| 0 | 0 | 4 | 21 |

| Pain Management Satisfaction After Discharge | | | |
|--|------|------|-----------|
| Poor | Fair | Good | Excellent |
| 0 | 0 | 7 | 19 |

| Use of Non-Pharmaceutical Pain Interventions | |
|--|----|
| Yes | No |
| 22 | 3 |

| Use of Non-Opioid Pain Medication | |
|-----------------------------------|----|
| Yes | No |
| 24 | 1 |

| Use of Opioid Pain Medication | |
|-------------------------------|----|
| Yes | No |
| 20 | 5 |

| Done Taking Opioid Medication | |
|-------------------------------|----|
| Yes | No |
| | |

18

6

| Unused Opioid Medication | |
|-----------------------------|----|
| Yes | No |
| 15 | 3 |
| Educated of Opioid Disposal | |
| Yes | No |
| 0 | 25 |
| Disposed | |
| Yes | No |
| 1 | 24 |

The DNP student also annotated what education needed to be given or reinforced and qualitative answers for the final analysis. Overall patients retained the education they were given before discharge on use of non-pharmaceutical pain-relieving interventions and the importance of using non-opioid medication. Every patient was knowledgeable on tapering off the opioids and using it before activities that could result in higher pain. Using the 5 A's model the DNP student would assess the patient's knowledge and reinforce the education on proper pain medication use. What did need to be assisted and advised on on all patients that were contacted was proper disposal of opioid medication and the risk it poses being left in the household.

Implication for Practice

The results showed positive adherence to the using an opioid sparing ERAS pathway as demonstrated by all 25 patient's charts representing the appropriate interventions to deem the anesthesia care as ERAS. As stated the literature shows that this can translate to less opioid use post-operatively. With patients reporting a high satisfaction of pain control while inpatient, it concluded that pain management is still successful when implementing the opioid sparing ERAS pathway. Given the patients satisfaction and the benefits of following a ERAS pathway as

documented by previous research found, the suggestion is to continue the implementation of an opioid sparing ERAS pathway.

While asking about different pain-relieving modalities it was clear to the DNP student that patients had a good understanding of implementing these modalities. 88% of patients used non-pharmaceutical pain relief and all patients that required pain medication after discharge used non-opioid pain medication in conjunction with their opioid medication. Patients also reported high satisfaction in pain management with the discharge medication they were given. Given the results it can be concluded that patients had an understanding of proper use of medication and the medication instructions given to the patients was sufficient in regards to medication consumption. While using a follow-up phone call to patients after discharge from the hospital could bring the opportunity for education reinforcement using the 5 A's model and increase patient satisfaction, in terms of medication use instructions, the education that patients are receiving currently at NMCS D is sufficient given the results obtained.

What results do warrant attention and present potential opportunity for practice change is the high rate of opioid prescription and the number of patients left with unused opioids. 100% of patients were sent home with opioid pain medication and of that 80% of patients stated that they took them. Leaving 20% of patients with unused and unnecessary prescription of a dangerous drug. 14 of the 18 patients done with their opioid medication reported that they had left over pills. This correlates with the literature that patients are being over prescribed, leaving unused opioids at risk of causing harm to the patient or another household member. Also 100% of patients were not educated on how to dispose of their unused medication. One option would be to protocolize discharge pain medication based on pain scores and medication consumption while in patient. This would require more research and data collection to better quantify how

much medication is being unused and in relations to particular procedures. What this DNP does recommend implementing is proper patient education on disposal of unused opioid medication. One solution could be providing patients with written instructions on disposal with their discharge medication. The implementation of an educational flyer is a low-cost, easy intervention that can ultimately decrease excess opioids in patient’s cabinets and community.

Cost/Benefit Analysis

A service member that has been diagnosed with opioid dependence could cost the healthcare system close to \$15,000 extra a year in medical expenses (Florence, Luo, Xu, & Zhou, 2016). Another potential significant cost would be the loss of productivity of the service member that would be on restrictive duty. While the cost of the DNP’s data collection and presentation to the stakeholders cost no money the figure 1. represents cost/benefit of implementing an educational flyer. With NMCS D performing roughly 12,000 surgeries per year and printing costing being .10 cents per page the cost would be roughly \$1,200 per year. An educational flyer could be a cheap and easy intervention, only costing the expenditure of printing.

Table 4

Cost/Benefit Analysis

| Resources | Cost | Rationale |
|--|-------------------------|--|
| Staff education on proper medication disposal and flyers | \$0.00 | Could be done during inpatient morning meetings |
| Educational flyer copies 12,000 x \$0.10 | \$1,200.00 | NMCS D has roughly 12,000 surgical procedures per year. |
| Total cost | \$1,200.00/year | |
| Benefit | Cost | Rationale |
| Cost increase of healthcare after diagnosis opioid prescription dependence per patient | \$15,500.00/per patient | Increased healthcare cost if lack of education leads to patient or family member with opioid prescription addiction. |

| | |
|---|-------------------------|
| Total cost avoidance for service member's insurance | \$14,300.00/per patient |
|---|-------------------------|

Communication Plan

As mentioned above communication with the stakeholders, Dr. Joseph Burkard and the Anesthesia Department, was key in completing the data collection and distributing of the results. The stakeholders were more invested because they could see the positive progress of the project. To do this the DNP student communicated via email to the stakeholders when certain stages had been completed such as the development of the patient survey, once all 25 patients had been contacted, and the completion of the data analysis. During the month that phone call follow-ups were made the DNP student updated the stakeholders bi-monthly, as well as when the final data had been compiled. After the data and clinical implications had been organized a final stakeholder meeting was conducted in March of 2020.

The EBP projects findings were disseminated at the California Association for Nurse Practitioners Conference on March 20th 2020 in Riverside Convention Center. This conference is most ideal due to proximity of the conference and the DNP student's professional career path. Once the manuscript was finalized in spring of 2020 it was submitted to the American Journal of Nursing for potential publication. This journal was chosen since it is a widely read publication that disseminates more than just original research but evidence based practice projects and process improvement projects.

Sustainability

Due to the patients having a high understanding of proper medication consumption there is no need to sustain the follow-up phone call to reinforce medication education using the 5 A's

model, but the DNP student does recommend implementing and sustaining the distribution of an educational flyer on unused pain medication disposal. While this is a relatively easy and cheap intervention due to the nature of military medicine it will be challenging to get it implemented permanently. One step will be to getting buy in from the anesthesia department to see it integrated it to patient education. To do this the DNP student did a final stakeholder presentation displaying the results of the data collection and recommendations found in the literature review. Moving forward, the flyer will need to be created and cleared by the medical center's forms department for approval of functionality. There is the potential for more steps that this DNP student will need to explore once buy-in is established, but one option would be to have another student absorbed the project and developed the flyer so that it can be permanently integrated into patient education at NMCS D.

Conclusions/Summary

The unintentional consequence of surplus opioids being prescribed all over the country is leading to a striking increase in overdoses and opioid related deaths (Kumar et al., 2017). This is impactful to the families and victims as well as the US medical system due to increased hospital admissions and associated health care costs (Hasak et al., 2018). This project demonstrated that pain satisfaction is not compromised by using an opioid-sparing ERAS pathway and with literature showing an increase of opioid medication use after consuming higher levels of opioid inpatient, this could be one step in combating this epidemic. Due to a large number of patients still having excess opioid medications after acute surgical procedures, it is imperative for the medical community to empower our patients with knowledge on how to dispose of these dangerous medications.

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