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Natalie Drone

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Implementation of the blunt tip cannula for dermal fillers to decrease adverse events intra and post treatment

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Decreasing Adverse Events by Implementing Blunt Tip Cannula in the
Administration of Dermal Fillers Intra and Post Treatment

UNIVERSITY OF SAN DIEGO
Hahn School of Nursing and Health Science

DOCTOR OF NURSING PRACTICE PORTFOLIO

by

Natalie Drone MSN, FNP-C

A portfolio presented to the
FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE
UNIVERSITY OF SAN DIEGO

In partial fulfillment of the
requirements for the degree

DOCTOR OF NURSING PRACTICE

September 3 ,2022

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Acknowledgments

I would like to express my sincere gratitude to the entire faculty at the University of San Diego Hahn School of Nursing and Health Science for their support throughout this program. I would specifically like to thank my faculty advisor, Dr. Joseph Burkard, for his continued support guidance throughout my doctoral program. His guidance, expertise and reassurance helped me as a student and a fellow advanced practice nurse.

I wish to thank my family for their endless support and love. My parents and my sister have been my strength and support since starting my nursing journey over ten years ago. They have pushed me to be strong, independent, and successful.

To my son, Liam, you have been so supportive from the very beginning. The long days and long nights, were tough but I thank you for pushing mommy to be the best and for believing in me and my passion. You have been my “reason.”

Opening Statement

Purpose in Pursuing the DNP

At a very young age I knew I wanted to have a career that was challenging and interesting but more importantly, would make a difference in people's everyday lives. It was more about what career would be best to give back rather than what a career could do for me.

I worked in the emergency department as a registered nurse for 8 years, caring for patients in an underserved area in Southern California. I took this time to build a strong foundation that I knew would one day set me up to be a great clinician. I found myself curious and intrigued about the pathophysiology of the patient that was being treated while working with physicians, asking the "why" behind the medical and nursing plans of care. I researched diseases and evidence-based nursing practices, treating the "patient" not just the disease that was before me.

During these years in the emergency department, I realized the hospital for some, was the only access to care. Limited access to primary care contributes to this challenge. I witnessed a delay in care for these patients because of the lack of having their own provider and for some, when they came to the hospital, they were more acute than they should have been.

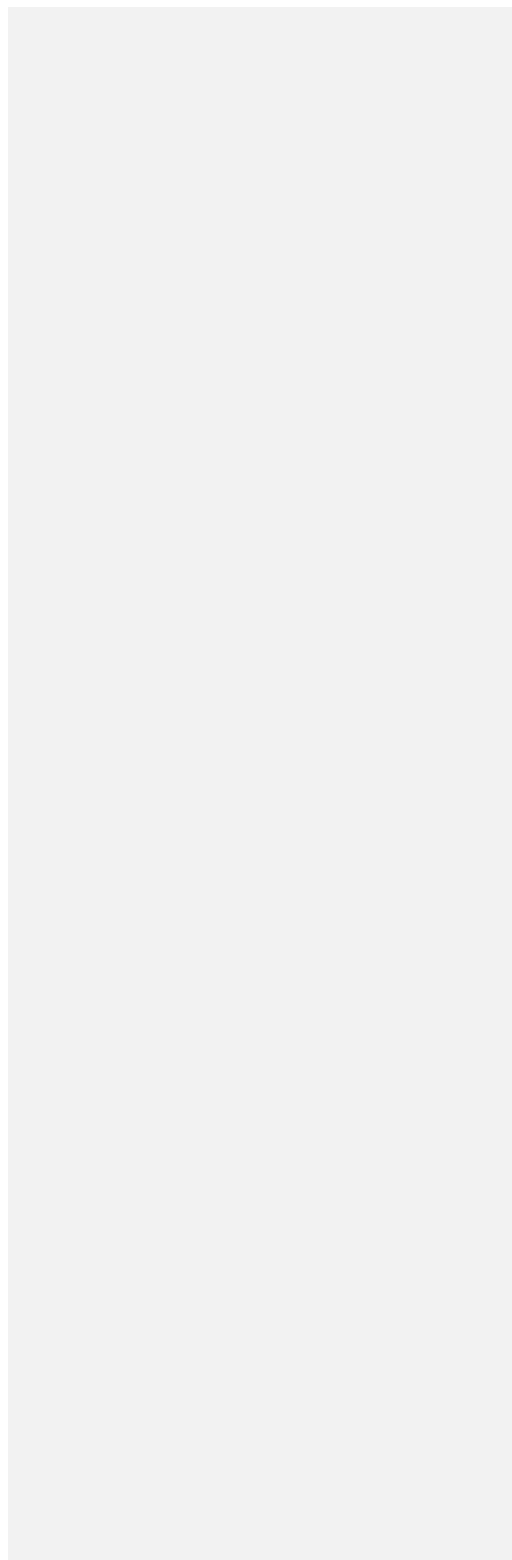
I stated looking towards the path of physician assistant after graduating but after having multiple conversations with Nurse Practitioners, I knew it was the right path for me. I applied for and was accepted into California Baptist University Family Nurse

Practitioner program, and I am glad I did because it was the best decision I could have made.

Since becoming a NP, I have worked in a specialty office practice as well as have had the opportunity to partner with a physician as my medical director in aesthetics. Having my Doctor of Nursing Practice (DNP) will now provide the terminal nursing degree for independent practice, closely linking the scientific field.

In summary, my nursing career as a registered nurse and as a NP along with my life experiences where I have had to be independent and resilient, will lead me to success and allow me to truly have an impact on patient outcomes.

Documentation of Mastery of DNP Program Outcomes



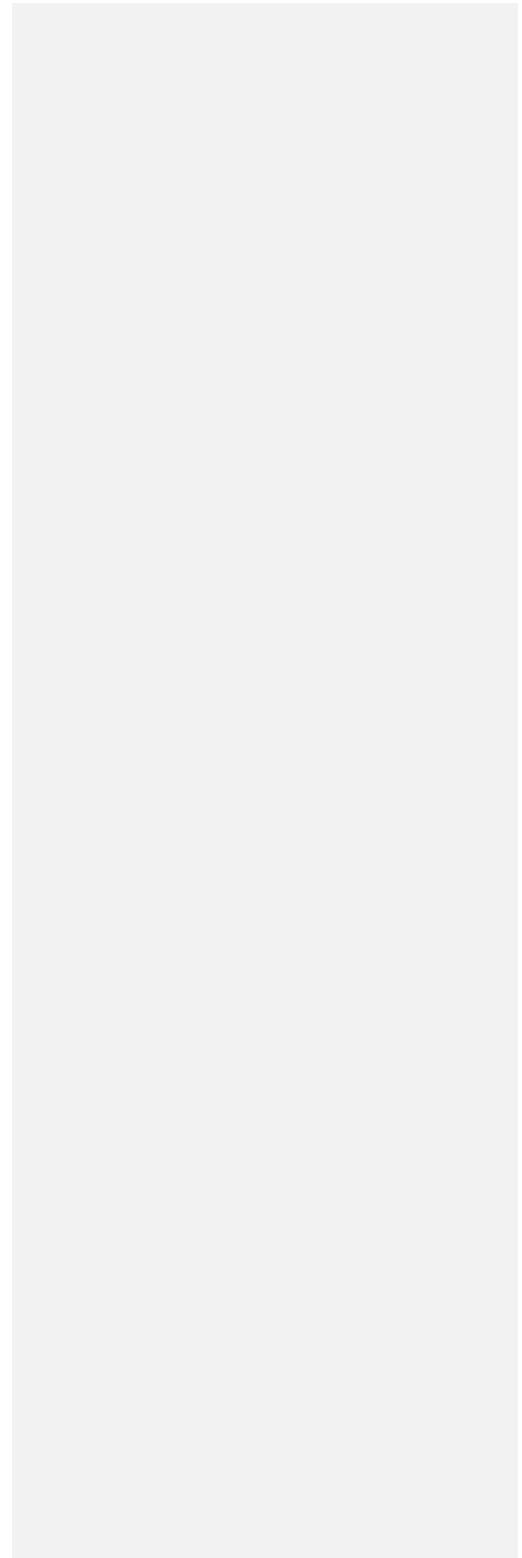
Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment 2

**Decreasing Adverse Events by Implementing Blunt Tip Cannula in the
Administration of Dermal Fillers Intra and Post Treatment**

Natalie Drone

Dr. Joseph Burkard

University of San Diego



Abstract

Abstract Title: Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment

Background: Dermal filler administration has become one of the most popular cosmetic procedures since dermal fillers were FDA approved in 1981. Although decreasing adverse events in dermal filler administration is a primary concern, aesthetic providers strive to provide patients with the most comfortable treatment experience possible without compromising aesthetic outcomes. Evidence has suggested that blunt tip cannulas provide a more comfortable delivery of dermal fillers and a lower risk of adverse events when compared with the standard practice of using a hypodermic needle. However, there is little clinical data comparing intra-procedure and post-procedure adverse events of the two techniques.

Purpose: The primary purpose of this evidence-based project is to compare adverse events when using either a blunt tip cannula, or the standard procedure of a hypodermic needle for the administration of dermal filler. Facial injections of dermal filler using a blunt tip cannula were compared to patients that were previously injected using a hypodermic needle. Pain/discomfort and the overall desired aesthetic effect of the two techniques were evaluated for statistical significance and best practice application.

Methods: 73 total patients, including both male and female adults, ages 24-77 years old, seeking facial augmentation using hyaluronic acid dermal fillers were included in the evidence-based project. Individuals who were pregnant, lactating or had received dermal fillers within the past 24 months were excluded. Once the participants were consented for

Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment 4

the treatment and a photo release was obtained, participants were prepared for administration of dermal fillers via a blunt tip cannula. Each injection site was cleaned using Isopropyl Alcohol and 4% Chlorhexidine Gluconate. Topical anesthesia was provided by applying a topical cream consisting of Benzocaine, Tetracaine and Lidocaine, 15 minutes prior to beginning the procedure. As part of the standard procedure for cannula insertion, a 20-gauge hypodermic needle was used to make an entry point for insertion of the cannula into the correct dermal plane. Administration of hyaluronic acid into the anterior and lateral mid-face was then performed using a retrograde injection technique. The treatment area was then compared to the data sets of patients previously injected with the standard practice hypodermic needle for pain, and aesthetic outcome. Patients were evaluated intra-procedure, immediately post-procedure procedure and then again 14 days after the treatment. Pain was assessed and recorded using the Wong Baker FACES pain scale whereas 0 is no pain, 1 is the least amount of pain and then increases to 10, with 10 as the most pain possible. Aesthetic outcome was measured by utilization of the Global Aesthetic Improvement Scale (GAIN). The GAIN measuring tool is a 5-point scale rating and measuring the aesthetic improvement in appearance. The degree and description are as follows; 5 is very much improved with an excellent corrective result, 4 is much improved with a marked improvement of the overall appearance but not completely optimal, 3 is an improvement compared to the initial condition, but an additional treatment may be needed, 2 is unchanged and the appearance remains the same compared with the original condition and 1 is a worsened where the appearance has worsened compared to the original condition.

Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment 5

Results: 14 days post treatment, all patients who were injected with dermal fillers by the blunt tip cannula overall had less pain and discomfort compared to the data set of patients that were treated by the hypodermic needle. In addition, all 73 patients scored a 5 on the GAIN improvement scale reporting a significant increase in overall aesthetic effect and outcome.

Conclusion: When compared to the standard procedure of dermal filler administration by hypodermic needle, blunt tip cannula administration results in less pain and bruising with no decrease in aesthetic outcome. The addition of the blunt tip cannula to the clinical setting should be considered by providers who seek to provide their patients with techniques that offer less pain and bruising without compromising aesthetic outcome.

Background and Significance

Injections of dermal fillers are one of the most common aesthetic procedures done worldwide (Vedamurthy, 2010). Dermal filler administration provides minimally invasive and cost-effective alternatives to traditional facial plastic surgery, however dermal filler treatments come with complications and adverse effects. Having a thorough understanding of facial anatomy is important in preventing adverse effects when injecting dermal fillers. Injectors need to be aware of preventative measures, including different injection techniques, such as using the blunt tip cannula, to minimize the risk of adverse events and improve patient outcomes (H, 2019). It is important that providers are properly trained on injection techniques developed from evidence-based practice. Training and continuing education in new dermal filler techniques while ensures the provider is practicing in the safest manner possible. Nationally medical spas are experiencing an increase in adverse events such as bleeding, bruising, pain/discomfort, and more serious events such as stroke and blindness have also been reported. The increase in these adverse events make it apparent that providers should implement the safest techniques available. A patient care “need” that has been identified is addressing the number of adverse effects during and after the patient dermal filler injections.

Purpose/Aims

In aesthetic medicine the need for practical guidance in executing evidence-based practice in the medical spa or other aesthetic clinical settings is overdue. The purpose of this evidence-based practice project was to see a decrease in adverse events such as pain and discomfort to those adult patients receiving dermal fillers using the blunt

tip cannula. The patient pain levels were compared to a previous data set of patients who received dermal fillers using the hypodermic sharp needle. The patients desired outcome would remain the same, if not better using the blunt tip cannula for these aesthetic treatments.

Introduction to the Evidence

A review of the literature was done by electronic searches using key words such as: dermal fillers, blunt tip cannula, hypodermic sharp needle, hyaluronic acid, and adverse events. The data provided on dermal filler injection technique and the adverse effects were collected from articles within OVID, CINHALL, PubMed, Science Direct and Google Scholar.

Literature Review/Evidence for the Problem

There were multiple case studies and journal articles that were reviewed in determining what the best and safest injection technique would be for the aesthetic patient. In a clinical study titled "Filler injections with the blunt tip microcannula compared to the sharp hypodermic needle," the main objective was to compare the different injection sites where dermal filler was placed with microcannulas versus the hypodermic needles. The study explained and described the amount of dermal filler required to achieve the desired aesthetic outcome for the patient, the pain experienced by patient, and the adverse events including bleeding and bruising and to demonstrate the advantages of single-port injection technique with the blunt-tip microcannula (Fulton, 2012). According to the study, ninety-five patients participated between 30-76 years of age, all with the desire to have facial and hand augmentation for antiaging purposes and were injected with either needle or cannula. One limitation regarding this study was the

small number of participants in the study. This limitation would not affect the practice policy/change because the outpatients setting where the changes would be implemented is relatively small and is comparable to the study reviewed. Although the participate number was small, the results did provide enough data to change and make decisions for best practice.

The clinical study evaluated patients using the GAIN scale (Global Aesthetic Improvements Scale). This scale is a measurement of the patient improvement post treatment compared to pretreatment and is a 5-point scale measured by the investigator. The GAIN results were excellent (55%), moderate (35%), and somewhat improved (10%) one month after the procedure, decreasing to excellent (23%), moderate (44%), and somewhat improved (33%) at the six-month evaluation for both the hypodermic needle and microcannula injections. Patients that experienced pain during injections was described as mild for the microcannula and moderate for the hypodermic sharp needle injection. Mild erythema was observed immediately after injection, that later resolved after a few hours. Bruising was minimal following the microcannula injections but more significant with the hypodermic needle and several cases developed a hematoma following the hypodermic needle injections (Fulton, 2012).

In another clinical study twenty patients age ranges 45-72 were injected with a calcium hydroxylapatite dermal filler using a blunt tip cannula. These participants agreed not to engage in other facial treatments for the 30-day study duration. The purpose of this study was to assess safety and effectiveness when injecting the dermal filler by using two methods of delivery: the blunt tip cannula and the traditional sharp needle. The study compared pain levels as well as injector assessed esthetic effectiveness and correction

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after treatment. This was a split-face, 30- day study and all patients that were injected with both the sharp needle and the blunt tip cannula. These patients were treated to full correction for volume loss to the nasal labial folds bilaterally.

Immediately following the procedure, all patients determine their pain levels by using the 10-point Visual Analogue Scale (VAS). This scale measures pain 0-10 with 0 being no pain and 10 being the worst pain. All patients confirmed that there was equal or less pain on the side of the face treated with the blunt tip cannula vs the side treated with the sharp needle. The patients report pain from cannula as a 0-5 with the cannula and a 0-7.5 with the sharp needle (Beer, 2014).

This study found that the needle caused more of the most common adverse events including bruising, pain, swelling and redness immediately after treatment, 3 days post treatment and 14 days post treatment.

In summary, this study shows that the blunt tip cannula can help limit the number of adverse events caused by injection because of its specific design. They provide safe an effective treatment without compromising the result of the treatment. The improvement in patient comfort and procedural outcomes would lead providers to advocate for blunt tip cannula injections over the sharp needle.

In the last study reviewed, it is said that injection-related side effects and complications are likely to occur during or after filler injections; they are mainly caused by the injection technique. Having an increase in the availability of dermal fillers has led to an increase in their application. Understanding the risks and benefits in using the different techniques can help providers diagnose, avoid, and manage complications when injecting. The main objective of this study was to assess the safety and efficacy of a

Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment 10

metallic cannula to inject dermal fillers but also to compare the safety of the cannula to the sharp needle. The study consisted of 25 participants all with either a grade two or three on the Modified Fitzpatrick Wrinkle Scale. The injections were randomized and the 0.5ml of a hyaluronic dermal filler was injected by needle or cannula.

The results showed that during injection, immediately after and up to day 3 post treatment, all patients reported less adverse effects such as, swelling, bleeding and bruising done by cannula than those who had needle injections. The overall conclusion of the study is that cannula is shown to cause less adverse effects and is a safe tool to deliver hyaluronic acid fillers (Hexsel et al., 2012).

Aesthetic treatments are becoming more popular and due to the changing goals in treatment, aiming to improve the patient experience and decrease adverse events should be the goal. The sharp needle technique for injection is still used in most medical spas worldwide but using the blunt tip cannula has been shown and proven to deliver the same aesthetic outcome desired by the patient with a decrease in downtime due to adverse events. Although the studies only had a small number of participants the outcomes are consistent and present strong enough evidence that cannula technique should be and will be used in augmenting facial features using hyaluronic acid fillers. Once implementing the cannula technique into practice, the expected number of adverse events should be less than those who received hyaluronic acid fillers by needle technique. This would provide better patient outcomes from both a safety and aesthetic standpoint. Although dermal filler administration is a relatively low risk procedure, research highlights that provider technique and knowledge of anatomy are important factors in decreasing the risk of AE (van Loghem, Humzah & Kerscher, 2016).

Evidence-Based Practice Model

Evidence based practice (EBP) models and frameworks are designed to guide healthcare practitioners to deliver the best and safest quality care to patients. There are multiple EBP models because no one model can meet the needs of the nursing and/or healthcare environment. For this project, the model chosen and used was the PARiSH model. Healthcare is ever changing, and the evidence-based practice models are designed to provide a systematic guide to implementation of evidence-based practice (Melnyk, Bernadette Mazurek, Ph.D. & Fineout-overholt, 2019). In medical spas nationwide more and more adverse events are taking place such as increased, bleeding, bruising, pain/discomfort, and more serious events such as stroke and blindness have also been reported. The opportunity for improvement and the need for change in injection technique by the providers is apparent. The PARiSH model described three elements and they are: evidence, context, and facilitation (Rycroft-Malone, 2008) . The goal is to see a reduction in adverse events in patients after dermal filler injections. This would be measured by patient call backs, complaints about discomfort and/pain during treatments and patient chart review. According to the PARiSH model this is considered part of the “evidence” element. The Iowa model would also consider this as “Identifying Triggering Issue,” both are similar in this first step (Melnyk, Bernadette Mazurek, Ph.D. & Fineout-overholt, 2019). This evidence would then be shared among all staff members, so all healthcare team members understand the need, the options on how else to treat patients and share the vision.

Decreasing Adverse Events by Implementing Blunt Tip Cannula in the Administration of Dermal Fillers Intra and Post Treatment 12

The next step is to gather the evidence that supports an increase in patients' outcomes receiving treatments not done with a needle but a blunt tip cannula. The cannula technique is less invasive but still provides the aesthetic outcome the patient's desire. The data would be gathered from patient call logs, patient charts, including patient photos, and provider documentation. These changes, if agreed upon and after teaching has been completed, would be made in clinic. They are relevant to the organization and the resources are available to implement the change in practice, this section of the implementation model falls under "context" in the PARiSH framework and is more "clinic specific" than the Iowa Model. Lastly, the PARiSH model describes "facilitation" as the third and final element. The support needed for successful change in the clinic would be needed by all staff, not just the injectors. Implementing change such as learning new techniques takes time and may lead to longer patient visits, not just for the treatment itself at first but also the educational piece from the provider to the patient. Even though all staff members will be aware of the change being made there may be one or two individuals who may be the clinic "facilitator." They will take on the role of an "educator" during this process. Their role would include but will not be limited to: educating injectors who already have the foundation, supporting their growth, answering staff and patient questions. They will then meet with the medical director to review charts to see if the change in practice has made a positive change in adverse events in patients receiving dermal fillers by cannula technique.

Successful implementation of new evidence to a clinic is most likely to occur when all staff and healthcare team members are receptive to change and when it aligns with the mission and vision of the clinic (Rycroft-Malone, 2008)

Methods

A total of 73 adult patients, both male and female, ages 24-77 years old, seeking facial augmentation using hyaluronic acid dermal fillers were included in the evidence-based project. Once the participants were consented for the dermal filler treatment, each injection site was cleaned using Isopropyl Alcohol and 4% Chlorhexidine Gluconate. Topical anesthesia was provided by applying a topical cream consisting of Benzocaine, Tetracaine and Lidocaine, 15 minutes prior to beginning the procedure. As part of the standard procedure for cannula insertion, a 20-gauge hypodermic needle was used to make an entry point for insertion of the cannula into the correct dermal plane. Administration of hyaluronic acid into the anterior and lateral mid-face was then performed using a retrograde injection technique. The treatment area was then compared to the data sets of patients previously injected with the standard practice hypodermic needle for pain, bruising and aesthetic outcome. Patients were evaluated intra-procedure, immediately post-procedure procedure and then again 14 days after the treatment. Pain was assessed and recorded using the Wong Baker FACES pain scale whereas 0 is no pain, 1 is the least amount of pain and then increases to 10, with 10 as the most pain possible. Aesthetic outcome was measured by utilization of the Global Aesthetic Improvement Scale (GAIN). The GAIN measuring tool is a 5-point scale rating and measuring the aesthetic improvement in appearance. The degree and description are as follows; 5 is very much improved with an excellent corrective result, 4 is much improved with a marked improvement of the overall appearance but not completely optimal, 3 is an improvement compared to the initial condition, but an additional treatment may be needed, 2 is unchanged and the appearance remains the same compared with the original

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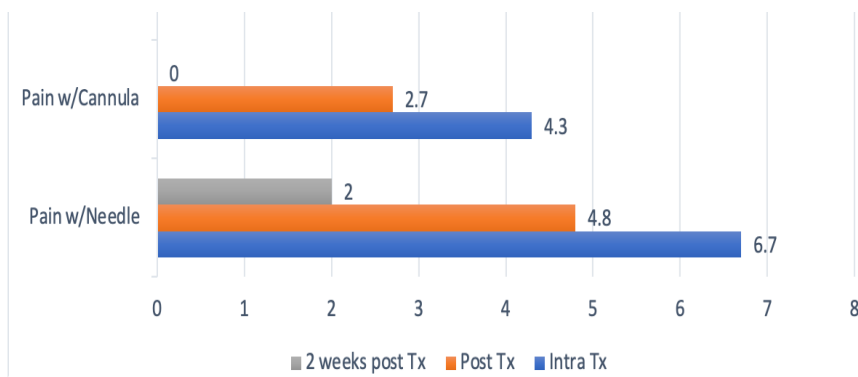
Ethical Considerations

This study was approved by the Institutional Review Board of the University of San Diego, Hanh's School of Nursing.

Results

The average pain reported was a 4.3 on the Wong Baker Pain scale intra procedure with the blunt tip cannula compared to a 6.7 of those who were previously injected with the hypodermic needle. The average pain post procedure with the blunt tip cannula was 2.7 compared to 4.8 with the hypodermic needle. After 14 days, the patients that were injected with the blunt tip cannula reported zero pain compared to those who were injected with the hypodermic needle with the average pain of 2. All patients who received dermal fillers reported a 5 on the GAIN aesthetic improvement scale for improvement and overall excellent correction to the area treated with dermal fillers.

Figure 1: *Patient Pain Scale Intra and Post Treatment*



Study Limitations

The sample size for this project was small and it would be recommended to conduct this on a larger sample size of both male and female adults. Most of the patients treated did not have a history of dermal filler treatments or other minimally invasive procedures. Of the 73 adult patients, 56 were female leaving very few male patients for this project. Having equal number of males to female patients could provide more detailed report. Additional studies should be done to compare injectors with similar levels of experience and injection volumes to identify any technique differences that may be helpful in decreasing the patient's pain and discomfort intra and post treatment.

Conclusion

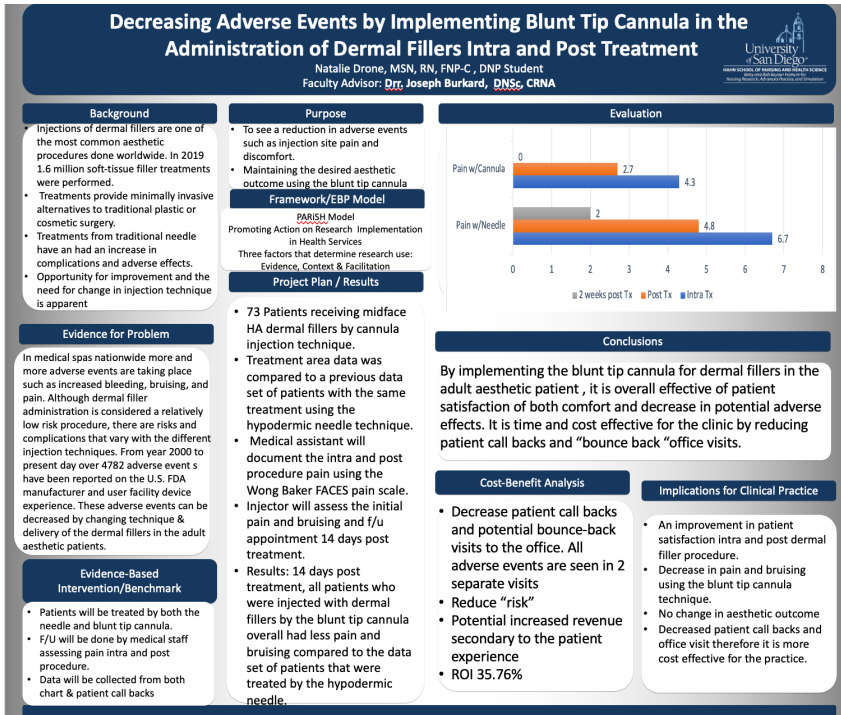
Cannulas have recently become a viable alternative to needles because cannulas seem to be associated with fewer adverse effects. Unlike the sharp hypodermic needle, the blunt tip cannulas are round and can be flexible, allowing a greater ability to administer dermal fillers allowing the injector to fill different areas of the face. They provide advantages in reducing pain with a degree of correction compared to the needle, therefore the addition of the blunt tip cannula to the clinical setting may be appropriate.

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Field Code Changed

Appendix A: Poster



Appendix B: Letter of Support

May 5, 2022

University of San Diego
5998 Alcalá Park
San Diego, CA 92110

RE: IRB Letter of Support
Natalie Drone MSN, FNP-C

Dear Institutional Review Board Chair and Members,

On behalf of Beaute Boutique Medical Aesthetics, I am writing to grant permission for Natalie Elaine Drone MSN, FNP-C a DNP student at the University of San Diego, to conduct her evidence-based project titled "Implementation of the blunt tip cannula for dermal fillers to decrease adverse events intra and post treatment" at our medical practice.

As the Medical Director at Beaute Boutique, my intention is to support Ms. Drone in her project. For her project, she will be reviewing two separate data sets without patient identifiers of adult aesthetic patients. These patients have had dermal filler injections in the past and this data will be compared to those who will have dermal filler injections in the medical practice.

We are happy to provide the setting and participate in Ms. Drone's evidence-based project as we recognize that the results will be used to improve aesthetic outcomes for our patients in our medical practice. Therefore, as the Medical Director and supporting physician to Ms. Drone at Beaute Boutique Medical Aesthetics, I agree that Natalie Drone's evidence-based project may be conducted at our medical practice.

Sincerely,
Amr Kouchouk M.D.

Appendix C: CITI Training Certificates

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM) COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Natalie Drone (ID: 9603026)
- **Institution Affiliation:** University of San Diego (ID: 1652)
- **Institution Email:** ndrone@sandiego.edu
- **Institution Unit:** Nursing
- **Curriculum Group:** Responsible Conduct of Research
- **Course Learner Group:** Biomedical Responsible Conduct of Research Course
- **Stage:** Stage 1 - Basic Course
- **Description:** This course is for investigators, staff and students with an interest or focus in **biomedical research**. This course contains text, embedded case studies AND quizzes.
- **Record ID:** 39149331
- **Completion Date:** 26-Oct-2020
- **Expiration Date:** 25-Oct-2024
- **Minimum Passing:** 80
- **Reported Score*:** 97

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Authorship (RCR-Basic) (ID: 16597)	26-Oct-2020	4/5 (80%)
Collaborative Research (RCR-Basic) (ID: 16598)	26-Oct-2020	5/5 (100%)
Conflicts of Interest (RCR-Basic) (ID: 16599)	26-Oct-2020	5/5 (100%)
Data Management (RCR-Basic) (ID: 16600)	26-Oct-2020	5/5 (100%)
Mentoring (RCR-Basic) (ID: 16602)	26-Oct-2020	5/5 (100%)
Peer Review (RCR-Basic) (ID: 16603)	26-Oct-2020	5/5 (100%)
Research Misconduct (RCR-Basic) (ID: 16604)	26-Oct-2020	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing Institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/7k8097108b-b1bc-4940-af03-e59e83315586-39149331

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: <https://www.citiprogram.org>

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

*NOTE: Scores on this [Requirements Report](#) reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Natalie Drone (ID: 9603026)
- **Institution Affiliation:** University of San Diego (ID: 1652)
- **Institution Email:** ndrone@sandiego.edu
- **Institution Unit:** Nursing

- **Curriculum Group:** Human Subjects Research - Biomed
- **Course Learner Group:** Biomedical Research - Basic/Refresher
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in biomedical research with human subjects.

- **Record ID:** 39149332
- **Completion Date:** 26-Oct-2020
- **Expiration Date:** 26-Oct-2023
- **Minimum Passing:** 80
- **Reported Score*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Belmont Report and its Principles (ID: 1127)	26-Oct-2020	3/3 (100%)
History and Ethics of Human Subjects Research (ID: 498)	26-Oct-2020	5/5 (100%)
Basic Institutional Review Board (IRB) Regulations and Review Process (ID: 2)	26-Oct-2020	5/5 (100%)
Informed Consent (ID: 3)	26-Oct-2020	5/5 (100%)
Records-Based Research (ID: 5)	26-Oct-2020	3/3 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/7kfb1ae5fe-b645-4f00-b06f-b39f95702f85-39149332

Collaborative Institutional Training Initiative (CITI Program)
 Email: support@citiprogram.org
 Phone: 888-529-5929
 Web: <https://www.citiprogram.org>

Appendix D
USD DNP Program Outcomes Exemplars
USD Program Hours-1000 upon completion
California Baptist University MSN program hours-540 completed
Natalie Drone MSN, RN, FNP-C

Fall 2020 Hours: 34

DNP Essential I:

- Fall 2020:
 - Collaborative Institutional Training Initiative completion
- Spring 2021
 - Quality Initiatives

DNP Essential II:

- Fall 2020:
 - PICOT question for evidence-based practice project formulation
 - Hypertension screening program formulation
- Spring 2021
 - Continued project for DNP scholarly practice

DNP Essential III:

- Fall 2020
 - Researched evidence through online data bases to find evidence to decrease adverse events intra and post injection in the adult dermal filler patient.
 - Hypertension guideline power point presentation using the Agree II tool
- Spring 2021
 - Finalized literature and barriers to implementation for final project

DNP Essential IV:

- Spring 2021
 - Analyzing data, trends, and graphs for the final EBP project

DNP Essential V:

- Fall 2020
 - Active member of California Association of Nurse Practitioners
 - Active member of American Academy of Emergency Nurse Practitioners
 - Active member of American Med Spa Association
- Spring 2021
 - Active member of CANP, discussed with members the impact Bill AB 890 will have and how it benefits patients across the state of California if Nurse Practitioners were practicing independently. Reached out to key speakers and ambassadors about AB 890.

- Fall 2021
 - Continued involvement with ambassadors and key representatives discussing Bill AB 890

DNP Essential VI:

- Fall 2020
 - Presented EBP project to Allergan and Galderma representatives. The focus was “why” we are contemplating our dermal filler injection techniques to increase positive patient outcomes
- Spring 2021
 - Developed and action plan for Providence St. Mary Medical Center, to implement their vision of “Health for a Better World.”
 - Continued scholarly practice EBP
- Summer 2021
 - Required readings and class presentations on culturally competent care.
 - Continued EBP project and finalized literature review for final manuscript

DNP Essential VII:

- Fall 2020
 - Hypertension levels of prevention screening program project
 - Focused on the population at risk
 - Provided education on hypertension

DNP Essential VIII:

- Fall 2020
 - Demonstrated advanced levels of clinical judgment in clinic and the emergency department structured around EBP to ensure positive patient outcomes and patient safety
 - IRB
- Summer 2021
 - Mindfulness through Sacred Encounters Power Point Presentation
 - Continued providing competent care to patients