

PainWeek®

Putting Tools in the Hands of Patients: An Integrative Pain Management Toolkit Initiative for Emergency Department and Hospital Patients

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Disclosure

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- No personal financial relationships

Learning Objectives

Upon completion of this course, participants will be able to...

- Describe pain management toolkit items for patients in the hospital or at home after discharge including virtual reality viewers, aromatherapy inhalers, hot/cold gel packs, acupressure devices and patient education materials.
- Recognize DHHS OIG Medicare and Medicaid Beneficiary gift rules and compliance issues related to patient centered toolkit components.
- Identify components of an integrative tool cart including an inventory and tracking system to maintain supply and demand.

Ongoing and Ever Changing Balancing Act Across All Disciplines and Specialties

UNbalanced Pain Management



Balance in Pain Management

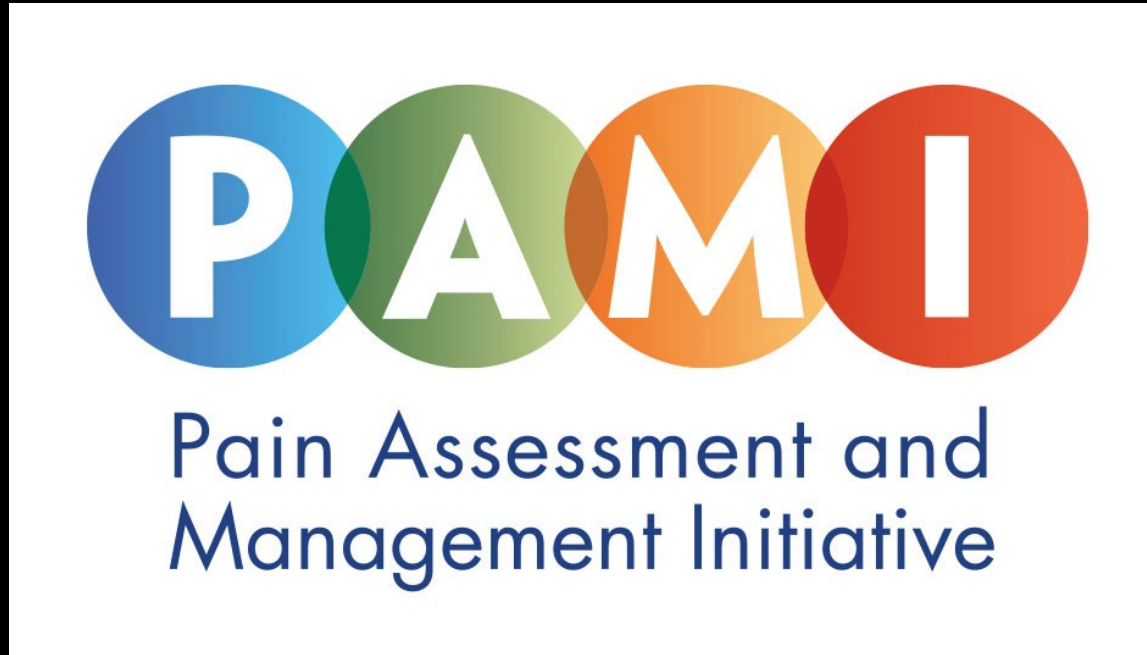
- Dilemma of balancing safe opioid and medication prescribing and high-risk patient recognition with *personalized* and effective pain management strategies
 - ED prescribing of opioids has dramatically decreased
 - Individual state regulations
- Search for multimodal management options
 - Analgesic shortages, varying hospital/institution policies
- Emphasis on non-opioid and non-pharmacologic pain management
 - **Limited time for education**
 - **Many options are unfunded**
- Effect of COVID-19 on pain management
 - Opioid related overdoses and deaths ↑ by 20-40% since March 2020
 - Loss of insurance, resources, resolve.....

Our Challenge

- How to give patients and multidisciplinary “providers” nonpharmacologic and nonopioid or OTC pain management options without adding additional work burden or significant cost
- How to provide the accompanying education for patients and providers
 - COVID restrictions
 - Multiple specialties
 - Burn out
- Best options and resources for a patient “pain toolkit”?

Our Setting and Background: 2 Very Different Sites





The Pain Assessment and Management Initiative (PAMI)

About PAMI

- Established in 2014 by Dr. Phyllis Hendry and Dr. Sophia Sheikh
- Housed in the University of Florida College of Medicine – Jacksonville, Division of Emergency Medicine Research
- Initial intent was to improve pain management in emergency settings
- Now includes a multidisciplinary team from emergency medicine, pharmacy, pain medicine, PT, trauma/surgery, nursing, IT, toxicology, hospital POST (Pain and Opioid Stewardship Taskforce), Center for Data Solutions, etc.
- Collaboration MOUs with FL Hospital Association, Florida Society of Health System Pharmacists, and others



Precursors to Success for Implementing a Pain Toolkit and Coaching Program

- Pain Management and Dosing Guide
- Discharge Planning Toolkit for Pain
- Patient Educational Videos
- Non-pharmacologic and Distraction Toolkit/Toolbox (Pediatric focused)
- Virtual reality viewers and brochure, communication cards
- Online learning modules, all free access

What was missing?

- Integrated institution wide approach
- A designated “educator or coach”
- Easily accessible nonpharmacologic tools & OTC analgesics
- EMR (EPIC) integrated orders, educational materials, discharge orders

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PAMI Educational Materials and Free Resources

Pain Assessment and Management Initiative
PAMI™
Pain Assessment and Management Initiative
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Pain Management and Dosing Guide
Pharmacologic and non-pharmacologic management of acute and chronic pain in children and adults
• Stepwise approach to pain management
• Non-opioids, opioids, ketamine and equianalgesic
• Oral, nasal, parenteral & topical medications
• Non-pharmacologic interventions

Discharge Planning Toolkit for Pain
A comprehensive discharge toolkit containing:
• Discharge Algorithm for Pain • Educational videos
• Pain Risk Factors Assessment • Educational handouts
• 4 Flat tires car analogy from ACPA
Adapt the toolkit to your own needs!

Non-pharmacologic Toolkit
A non-pharmacologic and distraction focused toolkit
• Course videos • Apps and resources
• Suggested toolbox components • Educational handouts

Patient Educational Videos
Pain Medication Safety • Additional Therapies
Relieving Back Pain • Managing Chronic Pain

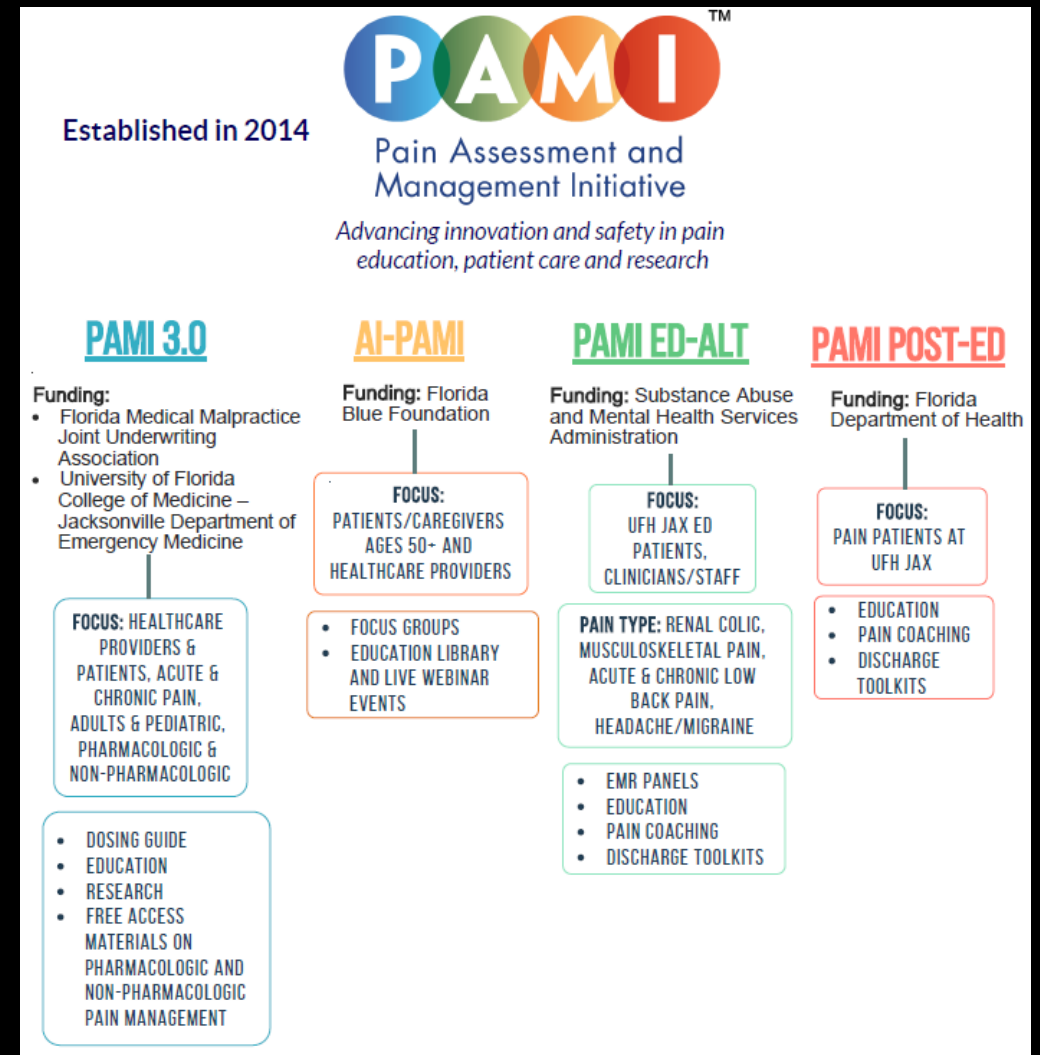
Virtual Reality (VR)
VR has proven to be effective in reducing pain and anxiety during procedures, burn or wound management, in labor & delivery and more.

Communication Cards
Assist EMS, ED, hospital and other health care providers in communicating with nonverbal or non-English speaking patients and families. Available in English, Spanish and Creole!

Phone: 904-244-4988 Email: pami@jax.ufl.edu
Facebook.com/ufpami | [linkedin.com/company/ufpami](https://www.linkedin.com/company/ufpami)

How We Jump Started Our New Mission

- Simultaneously submitted 2 grants
- Received funding to start the PAMI ED-ALT program
 - Order sets, discharge order panels
 - OTC analgesic starter kits for high risk patients
 - Toolkit supplies for ED
 - PT, nursing, and pharmacy champions
- PAMI POST-ED
 - Funds a pain coach/educator pilot
 - Funds pain toolkits and carts in EDs and hospitals



Existing PAMI Resource Building Blocks Used for New Toolkit Initiative

Educational Handouts and Videos

- 17 brochures: back pain exercises and pain medication safety are examples of available options
- Free to all healthcare organizations to download and customize
- Now used campus-wide via an EMR dot phrase and printed at discharge in the EDs and hospitals

- Working on access in ambulatory clinics
- Color trifold brochures also available

Discharge Planning Toolkit for Pain



Stretches & Exercises for Back Pain Relief & Prevention

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(1) Back Extensions:

- Standing with feet about hip width apart (leaning against a countertop for balance if needed)
- Support yourself with your hands at your waist
- Gently bend back into a comfortable stretch, then slowly return upright
- Do 10-20 of these at a time, frequently throughout the day

(2) Lower Trunk Rotation Stretch:

- Lying on your back with your knees bent and feet flat
- Gently rock both of your knees to one side as you exhale
- Slowly bring your knees back to the center as you inhale
- Gently rock both of your knees to the other side as you exhale
- Repeat for 2-3 minutes, alternating sides

(3) Seated Cat/Camel Stretch:

- Sitting comfortably in a supportive chair with hands resting in your lap
- As you inhale, gently extend your trunk and draw your shoulders back for a gentle stretch
- As you exhale, gently tuck your pelvis under and round your trunk for a stretch in the opposite direction
- Repeat this for 2-3 minutes, moving slowly with your breath

UNDERSTANDING THE RISKS

Opioids are one of the many methods that may be used to help treat your pain, but will not make your pain go away completely.

Your health care team will work with you to find the best way to manage your pain using either prescription or over-the-counter options, or both in some cases.

SIDE EFFECTS COMMONLY RELATED TO OPIOID USE MAY INCLUDE:

- Sleepiness/confusion
- Bad dreams/hallucinations
- Constipation
- Sweating
- Nausea/vomiting
- Itching
- Dry mouth
- Increased risk of falls
- Opioid dependence/addiction
- Respiratory depression (difficulty breathing)
- Overdose leading to death

Contact your doctor or immediately if you experience one or more of these side effects while taking opioids.

USE CAUTION

KEEP A LIST OF YOUR MEDICATIONS

Keep an updated list of your medications including the name, dose, and how often you take them. If possible, keep this list with you and show your health care providers at medical appointments.

REDUCE YOUR RISK

- Do not drive or perform activities that require your full attention while taking opioid medications.
- Avoid alcohol when taking medications for pain.
- Be aware that opioid medications can increase your risk of falls and accidents.

IF YOU TAKE AN OPIOID, HAVE NALOXONE ON HAND

If you are prescribed an opioid, ask your doctor to also prescribe you Naloxone too. Naloxone is a drug that can help reverse an opioid overdose should one occur.

TIPS FOR SAFE OPIOID USE

Opioids are prescription medications, such as oxycodone and hydrocodone that may be used to treat moderate-to-severe pain. These medications can be helpful, but also have risks.

KEEP YOUR DOCTOR INFORMED

Speak with your health care provider about ways to manage your pain using non-opioid medications to reduce the amount or length of time you need to take opioid medications. Always report any concerns or side effects.

AVOID MIXING MEDICATIONS

Unless otherwise discussed with your health care provider, benzodiazepines, muscle relaxers and sleep aids should be avoided. Taking these medications with opioids may increase your risk for harm.

PROPER STORAGE AND DISPOSAL

Store your prescription opioids in a secure location. It is important that these medications are kept out of reach of others.

Dispose of unused opioids immediately at your community drug-take-back program, a pharmacy mail-back program or ask your doctor about other disposal options.

Patient Education Videos on Pain Management

PAMI Patient Pain Education Videos

- **Additional Therapies to Help Manage Pain:**
Non-pharmacological and alternative therapies for pain management
- **Pain Medication Safety:**
Useful information and tips on taking pain medication safely
- **Preventing and Relieving Back Pain:**
Tips and exercises to manage back pain
Reviewed and approved by PT
- **Ways to Manage Chronic Pain:**
Helpful tips on managing chronic pain

Postcard Style Handouts Distributed to Patients (ED, pain clinic, primary care)



PAMI
Pain Assessment and Management Initiative

Educational videos for pain management

Watch these free PAMI developed videos with tips on how to help manage your pain.

Scan the QR code with your phone or visit pami.emergency.med.jax.ufl.edu to view the free videos and more resources.

SCAN FOR ACCESS TO ADDITIONAL PAIN MANAGEMENT MATERIALS



PAMI POST Patient Toolkit and Pain Coach Pilot Program are complementary and overlap in mission (Pain Coach topic presented yesterday)

Pain Coaching Approach



- Basic review of pain neuroscience, prevention of acute to chronic pain transitions
- Demonstrate integrative techniques with the patient and staff
- Provide non-pharmacologic toolkit items and educational brochures
- Review options to improve pain and quality of life
- Review OTC and topical analgesic options
- First known ED pain coach in the U.S.

Why a Toolkit?

- The Body's stress response
 - Chronic stress is associated with tension and pain in the musculoskeletal system
 - Relaxation plays a key role in allowing the body to rest and recover
- As a distraction method
 - Multiple theories suggest that forms of distraction that compete with painful and stressful stimuli can decrease the perception of pain
- Improves patient's self-efficacy after discharge
 - Combats feelings of helplessness and hopelessness
- Empowers medical staff, improves patient/provider communication and satisfaction
 - The ED environment along with the patients' condition is stressful and the toolkit provides a way to break through and demonstrate investment in the patient

Non-Pharmacologic Pain Management Analogy

- Think of non-pharmacologic management as your “base coat” or “primer” before applying additional coats of analgesic treatment.
- With the right base coat foundation, you have a better chance of painting a patient’s symptoms a more tolerable and long-lasting new color.





Toolkit Compliance and Logistics: Money can't buy everything you want!

Staying in Compliance with OIG Rules

- Worked with university compliance and legal departments to ensure our toolkit process aligned with regulations
- In compliance with the HHS Office of the Inspector General, our team negotiated prices and toolkit options to stay under the \$15 per item/\$75 annual value limit (section 1128A(a)(5) of the Social Security Act) for our toolkits
 - <https://oig.hhs.gov/fraud/docs/alertsandbulletins/OIG-Policy-Statement-Gifts-of-Nominal-Value.pdf>
 - <https://oig.hhs.gov/fraud/docs/alertsandbulletins/SABGiftsandInducements.pdf>
- Toolkit inventory system and EMR allows usage reports and a means to monitor distribution

The Nonpharmacologic Toolkit for Pain



What's in the Toolkit?

- Materials tailored for patients being seen for pain-related conditions
 - Acute and chronic pain
 - ED or hospital discharge, some items for use while in hospital
- Items for consideration
 - Car w/ 4 flat tires stress ball & analogy
 - Video postcard and applicable educational brochures on 17 different topics
 - Pain journals
 - Hot/Cold gel packs
 - Aromatherapy inhaler and accompanying brochure
 - Virtual reality cardboard viewer and accompanying brochure
 - Hand acupressure device for headache and tension pain

Car with Four Flat Tires Analogy



- A tool for improving patient self-efficacy for pain management
- A tangible way to demonstrate the effects of pain and the role the patient can play
- Doubles as a stress ball for relaxation techniques
- Postcard with video, QR code and acknowledgement of the American Chronic Pain Association

Pain Journals

- Small pocket journals with an accompanying label to guide patients in journaling
- Encourages patients to track symptoms, management, and daily activities
- Prompts patient to write down questions for their healthcare team



A pain journal is a useful way to track your pain journey and questions!

Important items for you to track:

- Are you experiencing new pain or recurring pain? Is it off and on or constant?
- Is your pain limiting any of your daily activities (work, sleep, etc.)?
- What have you used to help reduce your pain (ice/heat, medication, etc.)?
- What factors do you think contribute to your pain or stress?

Questions to ask your healthcare team (doctor, nurse, etc.):

- Medication questions: names, when to use, dose, side effects, refills
- Questions about your disease or condition; expected length of pain
- Your home pain plan: work/school accommodations, follow-up appointments, etc.

The Evidence for Pain Journaling

- Many benefits for patients: record keeping, no-cost, identify trends, improve communication with caregivers and providers
- Research studies have shown positive results from the use of pain journals/diaries with better symptom recall and symptom management.

Hot & Cold Gel Packs



- Reusable gel packs for hot/cold therapy for pain relief- 2 sizes
- Instructions printed on the back
- Can be microwaved or frozen depending on the type of pain relief needed
- Easy to clean and last for years
- Supply of frozen packs kept in ED

The Evidence for Hot & Cold Therapy

- Heat acts by:
 - Increasing blood flow to skin
 - Dilating blood vessels
 - Increasing oxygen and nutrient delivery to local tissues
 - Decreasing joint stiffness by increasing muscle elasticity
- With cold therapy, blood vessels constrict near the skin which can:
 - Reduce swelling when applied right after an injury
 - Relieve pain of muscle spasm or muscle tension

Aromatherapy Inhaler

- Individual reusable essential oil inhalers accompanied by a brochure with overview of aromatherapy benefits, cautions, and accompanying breathing exercises to promote relaxation
- After research and trials, opted for two options:
Calming (Lavender) to promote relaxation

Invigorating (Lemongrass/Eucalyptus)

Helps patients feel revitalized and energized to tackle daily activities and new pain management options

- Not for use in hospital



Aromatherapy Brochure

What is Aromatherapy?

Inhaling the aromas from essential oils can stimulate a part of your brain that plays a role in emotions, behaviors, heart rate, and blood pressure.



Essential Oils & Uses

Lavender- pain relief, insomnia, stress

Eucalyptus- cold & respiratory infections, pain relief

Lemongrass- anxiety, muscle aches, headaches

*See inhaler package label for precautions



Studies have shown that aromatherapy helps:

Manage pain

Reduce anxiety

Calm stress

Boost immunity

Improve sleep quality

E-mail: Pami@jax.ufl.edu

pami.emergency.med.jax.ufl.edu



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Updated 1/6/2021

Aromatherapy & Deep Breathing

Aromatherapy is a natural healing treatment that uses plant extracts or essential oils to improve the health of the body, mind and spirit.



Belly breathing

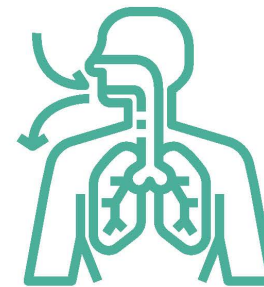
Sit in a comfortable position

Put your hands on your belly just below your belly button

Take a deep breath in through your nose, and let your belly push your hand out

Breathe out and feel the hand on your belly go in, and use it to push all the air out.

Repeat for 5-10 minutes



What is Deep Breathing?

Deep Breathing is not just relaxing; it also has been scientifically proven to affect heart rate, the immune system, and pain.

Research has shown that breathing exercises can have immediate effects by altering the pH of the blood, lowering blood pressure, and reducing stress and anxiety.

4-7-8 breathing

Use belly breathing either sitting or lying down

Put your hands on your belly just below your belly button

Take a deep, slow breath from your belly, and silently count to 4 as you breathe in

Hold your breath, and silently count to 7

Breathe out completely as you silently count to 8

Try to get all the air out of your lungs by the time you count to 8.

Repeat until you feel calm.

Breathing Exercises for Stress Relief



The Evidence for Aromatherapy: Pain Evidence

- Lavender is associated with reduced pain in relation to IM injections, IV insertions and trigger point injections.
- Aromatherapy massage (lavender, juniper, ylang ylang, rose) has shown a reduction in pain and fatigue for patients with rheumatoid arthritis.
- Post-operative knee replacement patients had reduced pain and blood pressure with inhalation of eucalyptus oils.
- For labor and delivery pain specifically, research has identified the benefit of many types of essential oils in reducing pain intensity during early labor.
- There is promising evidence in pain reduction for patients using aromatherapy with conventional medication therapy for renal colic, hemodialysis and neck pain.

Virtual Reality Cardboard Viewer



- PAMI-customized cardboard viewer
 - Multiple revisions to improve usability and comfort
- Brochure provides step-by step assembly instructions and suggests free VR apps by age group to download on a smartphone or IPod
 - Phone apps are constantly changing

Virtual Reality Brochure

VR viewer assembly instructions

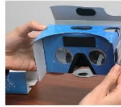
1) Slide VR viewer out of cardboard sleeve.



2) Open the front panel of the viewer.



3) Open inside flaps and secure to Velcro on either side of the lenses.



4) Set up your VR app of choice or scan the viewer profile QR code on the viewer to access Google cardboard. Secure your phone using the rubber band to hold the unit in place.



5) Adjust and secure your head strap. Remove the plastic lens protectors before use.



Scan the QR code to watch the PAMI VR viewer instructional video.

PAMI's Nonpharmacologic Toolkit focuses on **non-medication and distraction techniques for pain management.**

The free, downloadable toolkit includes a stepwise approach to pain management that incorporates pharmacologic and non-pharmacologic measures, therapeutic language, comfort positioning, coaching, distraction, guided imagery, and other physical/psychosocial modalities.

For free access materials and to learn how to build your own toolkit visit:

pami.emergency.med.jax.ufl.edu/resources/distraction-toolkit

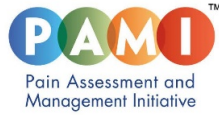
Scan here to download the toolkit:



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March 2021



Virtual Reality (VR) Viewer Tutorial

Virtual reality has proven to be effective in reducing pain and anxiety during procedures, burn or wound management, in labor & delivery and in other settings. VR is helpful in patients experiencing acute and chronic pain.

Possible benefits include:

- Decreased pain and anxiety without medication.
- Reduced drug-related side effects.
- Enhanced treatment experience.
- Shorter recovery times.

Contact the PAMI team:
pami@jax.ufl.edu
904-244-4986



Ages 10 and Under



VR Zoo Safari—With this app you can see and enjoy many different animals. Your kids can learn the names of animals and hear their sounds.



Peronio Pop-Up Book—Unlike any other interactive book around. Discover the adventures of Peronio, who can't decide what he wants to be when he grows up and follow him on his journey to explore various exciting challenges and mini games along the way



Baobab—Watch the most popular Virtual Reality stories and movies from Eric Darnell (director of Madagascar films) and Emmy-winning Baobab studios.



Tara's Locket—This app is an illustrated storybook adventure set in a stunning virtual world. This unique experience inspired by picture books allows children and adults alike to step into Tara's world and meet Tara and her friends first-hand.



Maze Walk VR—This app takes maze solving to a whole new level by utilizing a unique movement and selection method using the accelerometer and gyroscope on your mobile device. You can physically walk in both the real and the in the virtual world simultaneously.

Suggested **FREE** Virtual Reality Apps

Ages 11-17:



Google Expeditions—This app is an immersive learning and teaching tool that lets you go on VR trips or explore historical landmarks, go down to the atomic level, get up close with sharks- even visit outer space.



Final Kick VR— Enjoy the tense moments of the penalty shots as if you were playing in a Football final, making the most spectacular goals and saves all along with graphics that will make you feel as if you were actually in the match.



Roller Coaster VR—Hurtle past city skyscrapers or zoom through a tropical island setting in this enjoyable and visually appealing simulator.



VR X Racer—A UFO spaceship attacks our Earth— step up on a jet, fly up, and protect what belongs to us. The airway is very difficult and dangerous.



Cleanopolis VR—Your mission, if you accept it, is to fight against climate change and make sure the city of Cleanopolis gets rid of its CO₂ cloud. Assisted by your faithful companion named Toby, explore the 3D city and discover its districts.

Ages 18 and Up:



Aquarium VR— This interactive aquarium features sharks, clown fish and many more. Look deeper to learn more about the ethereal sea life in the pacific ocean.



Guiding Star VR (Google Play Store only)— This meditation app is designed to offer the most immersive virtual reality experience. Enjoy calming music, shooting stars and a beautiful environment.



VR Cities— Experience beautiful places, such as Paris and Venice, as if you're really there. Use a Google Cardboard, Zeiss VR One, or other VR headset to start your journey from your own couch or swivel chair.



Within VR— A cinematic VR experience, which includes beautiful immersive stories — award-winning VR documentaries, animation, music videos and more.

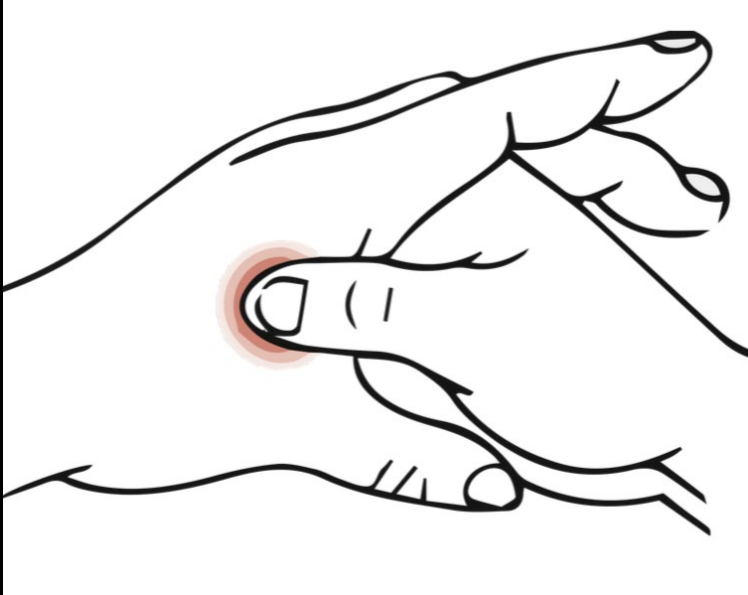


Fantastic Voyage VR—This VR medical animation draws you inside the human body where you fly through a beating heart, travel through the cerebral cortex, and float up the "glass aquarium" like abdominal vein.

The Evidence for Virtual Reality

- Virtual reality sessions may reduce a patient's perceived pain as demonstrated by studies with inpatient hospitalized patients.
- Patients immersed in virtual reality have displayed a higher pain tolerance, which could reduce the dosage and frequency of pain medication required for relief.
- Reported pain has been reduced in instances of both acute and chronic pain.
- Longer term, sustained pain reduction has been achieved in pediatric patients.

Hand Acupressure Device



- Each device is individually boxed with printed instructions. We offer child, small and regular size options
- The device uses the principles of acupoints and meridians from Traditional Chinese Medicine within the body, specifically targeting LI4
- LI4 is known in TCM to be related to headache and tension relief
- Item added after patient requests

The Evidence for Acupressure

- There is credible evidence for the use of acupressure in reducing pain: studied for menstrual pain, labor pain, low back pain, tension headaches
- Additional studies show its effectiveness in symptom management (nausea) during pregnancy and chemotherapy treatment and for tension headache management

Lessons Learned in Choosing Vendors and Items

- Negotiate bulk discounts
- Many vendors are passionate about our work
- Need for institution specific packaging information
- Turn around time for orders
- Input from staff and patients critical in design
- Storage

A list of our vendors is available upon request

Toolkit Medical Carts: Auto-Locking



Accessing the Toolkit Carts

- PAMI team maintains four self-locking carts between our two hospital locations, other areas keep a supply of toolkit items
- Toolkit components are individualized based on patient need and interest
- Delivered to patient and explained by pain coach
- All ED and trauma center staff trained and can access tool cart items 24/7
 - Inpatient and outpatient pain services trained and have access
 - PT, palliative care and other services
- Each cart contains an inventory log to track distribution of materials to patients for regulatory and reordering purposes
- Regular restocking and cart maintenance occurs 2-3 times/week



Advancing innovation and safety in pain education, patient care and research

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Nonpharmacologic Pain Management Discharge Toolkit & ED Supply Cart Guide

The purpose of this cart is to provide easy ED access to materials that promote nonpharmacologic pain management for patients during their ED stay or at discharge. Nonpharmacologic methods assist in decreasing the dose or need for opioids and other pain medications and improve patient safety and comfort. Cart contents are non-billable and customized to individual patient need and care plan.

Medicare Beneficiary Inducement rules allow for nominal gifts with a total value \leq to \$15.00/visit (up to \$75.00 annually). The estimated value of individual patient discharge toolkits containing all cart contents are valued at \leq \$15.00 in compliance with these rules.

PAMI Purple Cart Contents:

- Educational Brochures (OTC and topical analgesics, exercise, back pain, etc.)
- Hot & Cold Gel Packs (see label for safety and warming instructions)
- Aromatherapy individual inhalers: Lavender- calming & Eucalyptus and Lemon Grass- invigorating (FOR HOME USE ONLY)
- Stress Ball/Car with 4 Flat Tires (Pain is like a car with 4 flat tires-Medications only “fill” one tire; integrative and non-opioid pain management interventions help “fill” the other 3 tires)
- Virtual Reality Viewers: see VR Brochure for instructions, recommended Apps and QR codes (use with iPhone, iPod, or Android device)
- Blue and Red PAMI toolkit bags

1. Input 4-digit code to unlock cart, if unknown call 904-244-4986 or charge nurse. Do not share code with non-ED Staff. Cart will automatically lock after 60 seconds. If one or more drawers are open when cart locks, drawers will not shut. If this happens, unlock the cart by entering keypad code to close all drawers. Make sure all drawers are closed and locked before leaving the cart.

2. Before giving a patient any cart items, place a patient sticker in the inventory log located in the top drawer and check selected items. This is important for inventory and reporting purposes. You can also write in the patient information. Leave the inventory log form in the cart.

3. For questions, comments or to refill cart items, call 904-244-4986 to speak to a PAMI team member or email pami@jax.ufl.edu.

Thank you for being a patient advocate and PAMI Champion!

Inventory Management: Unexpected Project Challenge

Toolkit Item	Base Quantity	2/8/2021	2/17/2020	2/25/2021	3/5/2021	3/11/2021	3/18/2021	3/24/2021	4/1/2021	4/8/2021	4/15/2021	4/22/2021	4/29/2021	5/6/2021	5/14/2021	5/21/2021	5/28/2021	6/4/2021	6/11/2021	6/18/2021
PAMI tote bag (red)	20	0	4	3	6	6	0	2	5	2	1	0	4	1	0	13	9	8	10	26
PAMI tote bag (blue)	20	8	13	7	12	12	10	17	9	20	12	14	15	17	9	4	7	7	8	10
Blue/Orange large hot/cold packs	30	15	35	18	30	28	15	34	41	34	30	31	28	30	15	28	37	28	32	32
Purple mini hot/cold packs	25	9	12	9	15	7	6	8	15	6	8	8	22	13	4	3	10	13	16	7
Stress balls/cars	25	9	15	10	17	6	11	15	21	17	21	5	12	15	8	17	12	15	14	12
PAMI Postcards	30	7	14	8	13	13	8	7	23	11	8	10	11	9	6	4	11	10	9	7
VR viewers	20	4	10	2	8	6	7	10	14	8	12	8	11	9	4	1	5	4	5	3
Lavender Aromatherapy	20	10	18	13	12	14	9	17	26	27	20	14	18	14	8	13	15	14	14	8
Eucalyptus/Lemongrass Aromatherapy	20	7	12	3	13	6	5	7	11	5	12	8	10	6	2	13	6	13	19	12
Aculief	20						3	12	13	17	9	3	8	8	5	13	3	9	8	4
Journals	10																	6	8	8

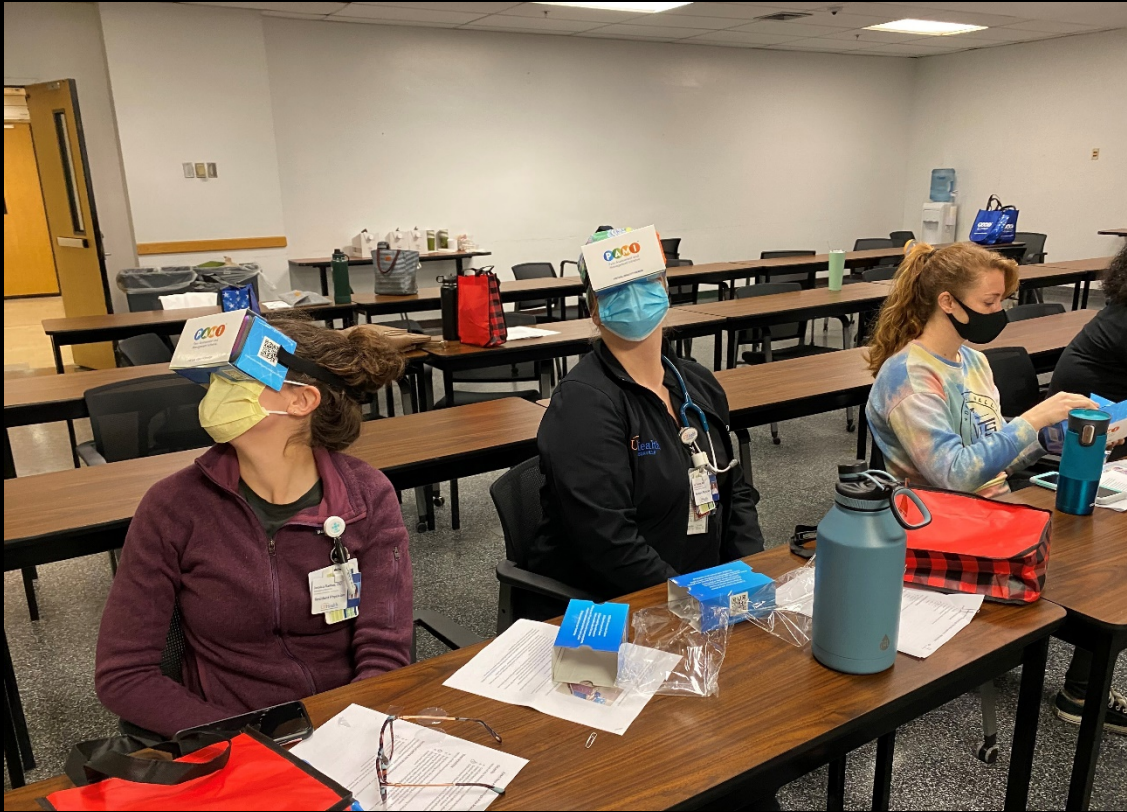
Toolkit Item	Cumulative Total Given (all carts)
PAMI tote bag (red)	224
PAMI tote bag (blue)	433
Blue/orange large hot/cold packs	962
Purple mini hot/cold packs	369
Stress balls/cars	505
DC PAMI Video Postcards	371
VR viewers	268
Lavender Aromatherapy	690
Eucalyptus/Lemongrass Aromatherapy	377
Aculief	173
Journals	38

Increasing Staff Uptake and Buy In: Multidisciplinary

Toolkit Education and Awareness

- PAMI rounding and attendance at ED huddles
 - Staff excited to learn about something non-COVID related!
- Attendance and demonstration at regular staff/faculty meetings and POST meetings
- Toolkit demonstrations and training
- Regular email updates
- Use of PAMI champions and other collaborating departments
 - Nurse, resident, PT, PA, inpatient pain service....

Hands-on Education is Key



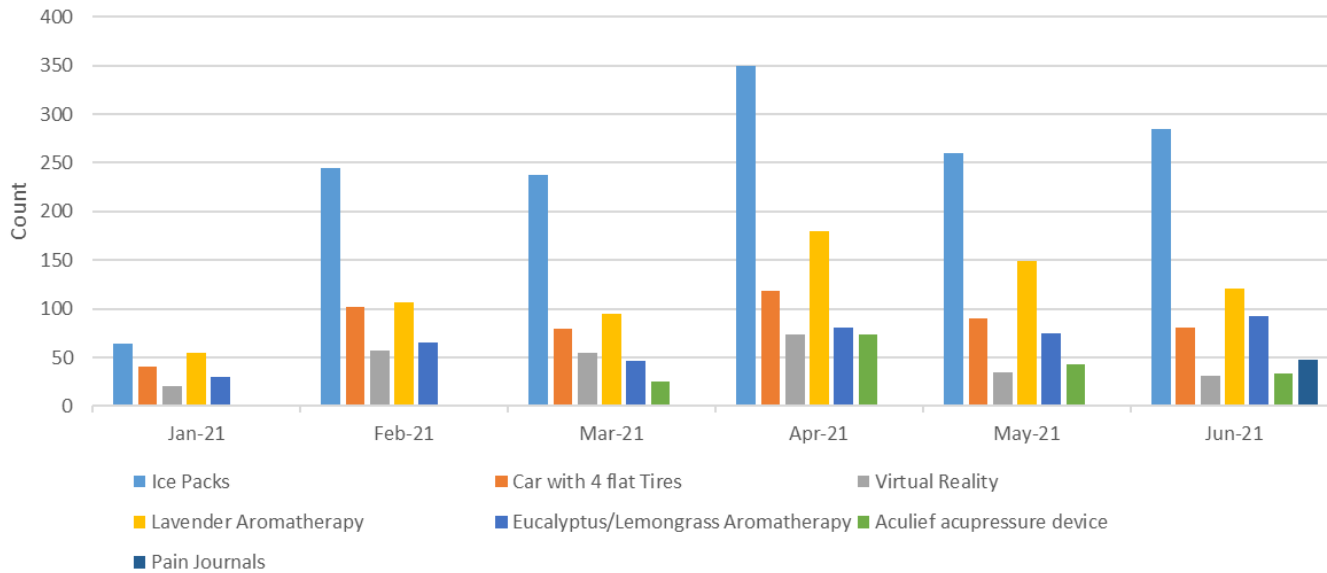
Resident Education Session

- Each new EM resident, APP and faculty member receives a complete toolkit bag and educational materials so they can actually experience the items.
 - Anesthesiology, pediatric and surgery residents
- Residents key to embracing new initiatives.
- Different dynamics between the two hospital settings.

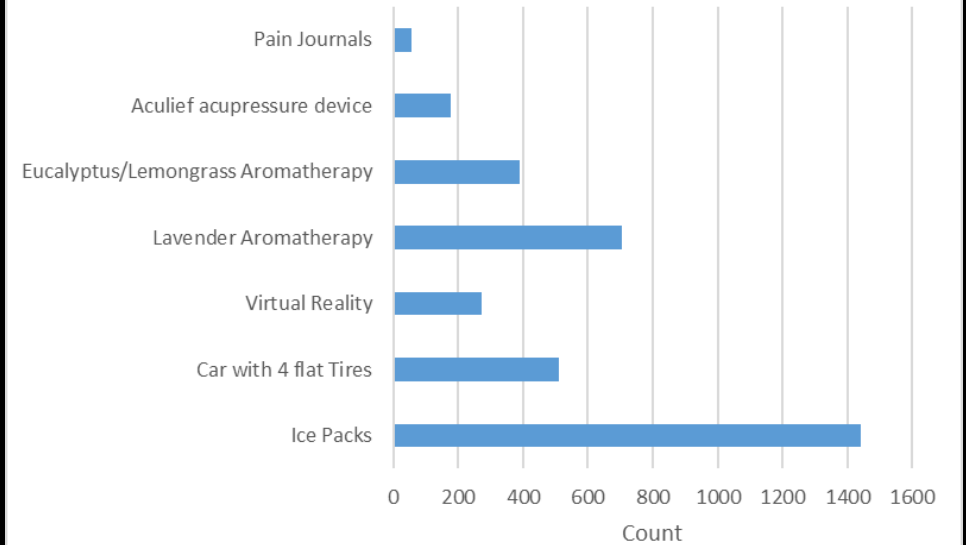
Patient Engagement and Perceptions

Toolkit Distribution

Toolkit Distribution by Month



Toolkit Distribution Cummulative (Jan - June 2021)



Patient and Provider Feedback

Pediatric EM Faculty Member	“Patients report the toolkit items (especially aromatherapy inhalers) are very helpful and make them feel better. I am also sure it helps with patient satisfaction and stress.”
Emergency Medicine Resident	“Love giving the toolkit items to patients, especially aromatherapy and the journals.”
Trauma Nurse	“The PAMI cart contents are great to use on trauma patients that are being discharged home after a MVC or fall.”

Data is collected on all pain coach patients regarding feedback on toolkit items and which items are given to the patient. Frequently patients call back for reassurance and questions regarding toolkit items and coaching topics.

Lessons Learned

Lessons Learned


- Need system for toolkit distribution tracking as part of project start-up
- Continuous hands-on education and reminders are important for staff uptake
- Toolkits must be placed in an easy-access areas (otherwise “out of sight, out of mind”)
- Need for initial and discharge order panels to include orders and instructions for toolkit nonpharmacologic items.
- VR not good for patients with headaches, facial trauma, nausea...
 - Takes more patient and provider time
 - Need internet connection and applications have to be downloaded
 - Adoption of technology

What the Future Holds for Pain Toolkits

- Adding therapeutic coloring pages
- Inpatient carts
- Ongoing improvement, revision and feedback
- Expanding to other services: maternity, rheumatology
- “Brag board” in main ED hallway to recognize PAMI “stars”
- Development of a “how to” manual
- Patient long term follow-up
- Pain Awareness Month (September) displays and demonstrations in the 2 hospitals

Team Effort

- It takes a village to start a new program but no one tells you where to find your village or how to get there!
- Thanks to all of our amazing partners, champions and patients!



They say it takes a village
to raise a child but no
one ever tells you where
it is or how to get there.

- Unknown

References

- Ahmadpour, N., Randall, H., Choksi, H., Gao, A., Vaughan, C., & Poronnik, P. (2019). Virtual Reality interventions for acute and chronic pain management. *The International Journal of Biochemistry & Cell Biology*, 114, 105568. doi: 10.1016/j.biocel.2019.105568
- American Psychological Association. (2018, November 1). Stress effects on the body. <http://www.apa.org/topics/stress/body>
- Ayan, M., Tas, U., Sogut, E., Suren, M., Gurbuzler, L., & Koyuncu, F. (2013). "Investigating the effect of aromatherapy in patients with renal colic," *Journal of Alternative and Complementary Medicine*, vol. 19, no. 4, pp. 329–333.
- Bushnell, M., Čeko, M. & Low, L. Cognitive and emotional control of pain and its disruption in chronic pain. *Nat Rev Neurosci* 14, 502–511 (2013). <https://doi.org/10.1038/nrn3516>
- Bagheri-Nesami, M., Espahbodi, F., Nikkhah, A., Shorofi, S. A., & Charati, J. Y. (2014). "The effects of lavender aromatherapy on pain following needle insertion into a fistula in hemodialysis patients," *Complementary Therapies in Clinical Practice*, vol. 20, no. 1, pp. 1–4.
- Chen, S.-F., Wang, C.-H., Chan, P.-T., Chiang, H.-W., Hu, T.-M., Tam, K.-W., & Loh, E.-W. (2019). Labour pain control by aromatherapy: A meta-analysis of randomised controlled trials. *Women and Birth*, 32(4), 327–335. doi: 10.1016/j.wombi.2018.09.010
- Chen YW, Wang HH. The effectiveness of acupressure on relieving pain: a systematic review. *Pain Manag Nurs*. 2014 Jun;15(2):539-50. doi: 10.1016/j.pmn.2012.12.005. Epub 2013 Feb 15. PMID: 23415783.
- Cho, E. H., Lee, M.-Y., & Hur, M.-H. (2017). The Effects of Aromatherapy on Intensive Care Unit Patients' Stress and Sleep Quality: A Nonrandomised Controlled Trial. *Evidence-Based Complementary and Alternative Medicine*, 2017, 1–10. doi: 10.1155/2017/2856592

References

- Dimitriou, V., Mavridou, P., Manataki, A., Damigos, D. (2017). The use of aromatherapy for postoperative pain management: a systematic review of randomized controlled trials. *Journal of Perianesthesia Nursing*. 32(6):530-541. doi:10.1016/j.jopan.2016.12.003
- Eun, J.L., & Frazier, S. (2011) The efficacy of acupressure for symptom management: A systematic review. *Journal of Pain Management*, 42, 589-603.
- Ferrari, R., & Louw, D. (2013). Effect of a pain diary use on recovery from acute whiplash injury: a cohort study. *Journal of Zhejiang University. Science. B*, 14(11), 1049–1053. <https://doi.org/10.1631/jzus.B1300022>
- Ferrari, R., Russell, A.S., 2010. Effect of a symptom diary on symptom frequency and intensity in healthy subjects. *J. Rheumatol.*, 37(11):2387-2389. [doi:10.3899/jrheum.100513]
- Figueiredo, J. & Griffith, J. (2016). Chronic Pain, Chronic Demoralization, and the Role of Psychotherapy. *Journal of Contemporary Psychotherapy*. 46. 10.1007/s10879-016-9331-x
- Garra, G., Singer, A. J., Leno, R., Taira, B. R., Gupta, N., Mathaikutty, B., & Thode, H. J. (2010). Heat or Cold Packs for Neck and Back Strain: A Randomized Controlled Trial of Efficacy. *Academic Emergency Medicine*, 17(5), 484-489. doi:10.1111/j.1553-2712.2010.00735.x
- Hamdamian, S., Nazarpour, S., Simbar, M., Hajian, S., Mojab, F., & Talebi, A. (2018). Effects of aromatherapy with *Rosa damascena* on nulliparous women’s pain and anxiety of labor during first stage of labor. *Journal of Integrative Medicine*, 16(2), 120–125. doi: 10.1016/j.joim.2018.02.005

References

- Hsieh, LL, et al. (2010). Effect of acupressure and trigger points in treating headache: a randomized controlled trial. *American Journal of Chinese Medicine*, 38, 1-14.
- Jun, Y.S., Kang, P., Min, S.S., Lee, J.-M., Kim, H.-K. & Seol, G. H. (2013). "Effect of eucalyptus oil inhalation on pain and inflammatory responses after total knee replacement: a randomized clinical trial," *Evidence-based Complementary and Alternative Medicine*, vol. 2013, Article ID 502727, 7 pages.
- Karaman, T., Karaman, S., Dogru, S., Tapar, H., Sahin, A., Suren, M., ... Kaya, Z. (2016). Evaluating the efficacy of lavender aromatherapy on peripheral venous cannulation pain and anxiety: A prospective, randomized study. *Complementary Therapies in Clinical Practice*, 23, 64–68. doi: 10.1016/j.ctcp.2016.03.008
- Kasar, K. S., Yildirim, Y., Aykar, F. S., Uyar, M., Sagin, F. G., & Atay, S. (2020). Effect of Inhalation Aromatherapy on Pain, Anxiety, Comfort, and Cortisol Levels During Trigger Point Injection. *Holistic Nursing Practice*, 34(1), 57–64. doi: 10.1097/hnp.0000000000000350
- Kaviani, M., Maghbool, S., Azima, S., & Tabaei, M. H. (2014). Comparison of the effect of aromatherapy with *Jasminum officinale* and *Salvia officinale* on pain severity and labor outcome in nulliparous women. *Iranian journal of nursing and midwifery research*, 19(6), 666–672.
- Keefe, K.R., Byrne, K.J., Levi, J.R. (2018). Treating pediatric post-tonsillectomy pain and nausea with complementary and alternative medicine. *Laryngoscope*. 128(11):2625-2634. doi:10.1002/lary.27231
- Malanga, G.A., Yan, N. & Stark, J. (2015). Mechanisms and efficacy of heat and cold therapies for musculoskeletal injury, *Postgraduate Medicine*, 127:1, 57-65, DOI: 10.1080/00325481.2015.992719

References

- Mallari, B., Spaeth, E. K., Goh, H., & Boyd, B. S. (2019). Virtual reality as an analgesic for acute and chronic pain in adults: a systematic review and meta-analysis. *Journal of Pain Research*, Volume 12, 2053–2085. doi: 10.2147/jpr.s200498
- Mantzios, M., & Giannou, K. (2018). When Did Coloring Books Become Mindful? Exploring the Effectiveness of a Novel Method of Mindfulness-Guided Instructions for Coloring Books to Increase - Mindfulness and Decrease Anxiety. *Frontiers in psychology*, 9, 56. <https://doi.org/10.3389/fpsyg.2018.00056>
- Mehta, P., Dhapte, V., Kadam, S., & Dhapte, V. (2016). Contemporary acupuncture therapy: A droit cure for painless recovery of therapeutic ailments. *Journal of traditional and complementary medicine*, 7(2), 251–263. <https://doi.org/10.1016/j.jtcme.2016.06.004>
- Metin, Z. G., & Ozdemir, L. (2016). The Effects of Aromatherapy Massage and Reflexology on Pain and Fatigue in Patients with Rheumatoid Arthritis: A Randomized Controlled Trial. *Pain Management Nursing*, 17(2), 140–149. doi: 10.1016/j.pmn.2016.01.004

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Questions?

thank you!