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## Improving Patients' Perception of Pain: An Evaluation of a Nurse Practitioner-Led Chronic Pain Coaching Group

Suzanne A. Levy

Seton Hall University, dr.suzannelevydn@gmail.com

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**Improving Patients' Perception of Pain: An Evaluation of a Nurse Practitioner-Led  
Chronic Pain Management Coaching Group**

by

Suzanne A. Levy

DNP Scholarly Project Committee

Dr. Mary Ellen E. Roberts

Dr. Kimberly Conway

Megan Filoramo

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

Seton Hall University

2023

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College of Nursing  
Graduate Department

## APPROVAL FOR SUCCESSFUL DEFENSE

Suzanne A. Levy has successfully defended and made the required modifications to the text of the DNP Final Scholarly Project for the Doctor of Nursing Practice during this Spring, 2023

### Final Scholarly Project COMMITTEE

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Dr. Mary Ellen Roberts

Date

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Dr. Kimberly Conway

Date

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Megan Filoramo

Date

## **Dedication**

“Trust in the Lord with all your heart and lean not on your own understanding; in all your ways submit to him, and he will make your paths straight,” Proverbs 3:5-6. I quote this bible verse as a testimony to the many challenges I faced during this doctoral program. Despite all of the perceived difficulties, with faith and the support of my loved ones, I successfully overcame all obstacles.

To my amazing parents, Tanya and Wayne, thank you for your unwavering belief in my capabilities and for being my biggest cheerleaders in the relentless pursuit of my dreams. Your words of encouragement have played the most significant role in motivating me never to give up! To my sweet younger brother Andrew, thank you for always volunteering to assist with my studies; your efforts were much appreciated.

To those suffering from chronic pain, I hope my quality improvement project can help to relieve some of your discomforts. By adopting a positive mindset and promoting awareness, the healthcare community can improve the standard of care to enhance the quality of life and overall well-being of all chronic pain patients.

## **Acknowledgments**

The completion of my doctoral project was made possible through the guidance of Dr. Mary Ellen Roberts. Her mentorship and professional network played an integral role in securing a DNP project mentorship with Megan Filoramo, a leader in the complex specialty of pain management nursing.

It has been my honor to have Megan Filoramo as my DNP project mentor, her decades of work with the chronic pain community are commendable. She facilitated the opportunity to implement my project in the pain management practice where she is employed and gave expert guidance and resources to assist with the project creation.

A special thank you to Dr. Kimberly Conway for her insightful review of my work and recommendations for improvement. The time Dr. Conway and Dr. Roberts spent to ensure my paper reflected the culmination of my efforts over the past year is greatly appreciated.

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## Abstract

*Background:* The opioid crisis in the United States warrants an improved standard of practice for managing chronic pain. A large body of evidence highlights a positive correlation between health coaching focused on mindfulness-based interventions and its potential to improve the overall well-being of chronic pain patients. Currently, there are limited resources to address these patients' psychosocial needs, and the primary treatment plan consists of pharmacological management using long-term opioids. *Project Aim:* The 3M Chronic Pain Coaching Model is a 6-week coaching group focused on mindfulness, meditation, and motivation. This quality improvement project aimed to evaluate how a mindfulness-based chronic pain coaching group affected patients' perception of pain. *Methods:* Two six-week coaching sessions with 5 and 7 participants were implemented at a pain management practice. The coaching groups were led by a chronic pain nurse practitioner (NP) dually certified as an integrative health and wellness nurse coach. Each 60-minute coaching group was held virtually and conducted once per week. Participant responses to pre-and post-intervention Pain Self-Efficacy Questionnaires (PSEQ) and a post-coaching feedback survey were collected. *Results:* The results of the coaching group illustrated an improved perception of pain as evidenced by qualitative data collected in the feedback survey. However, the pre-and-post PSEQ scores did not provide statistically significant results to indicate that patients developed an improved pain perception. *Conclusion:* Chronic pain coaching as an adjunctive therapy to traditional pharmacological treatment can potentially improve patients' perception of pain and empower them to take control of their lives. More long-term studies are necessary to create official practice guidance.

**Keywords:** Chronic pain, Mindfulness, Meditation, Self-Efficacy, Health Coaching

## **Background**

### **Clinical Issue**

Chronic pain is defined as pain that persists beyond the expected recovery time for tissue healing and is quantified as greater than three months in duration (Yong et al., 2022). It is estimated that 50 million Americans experience chronic pain, which can lead to opioid dependence, functional limitations, and reduced quality of life (Dahlhamer et al., 2018). For many chronic pain patients, long-term use of opioids has been the primary resource for managing their symptoms. However, over the past decade, the adverse effects of opioid use disorder in the United States have called for strict prescription guidelines. These regulations, although necessary to combat opioid misuse and addiction, further stigmatize the pharmacological treatments that help chronic pain patients live meaningful lives.

To fully understand the chronic pain experience, examining how this disease process affects different domains of an individual's life is essential. In a study that examined adults with chronic musculoskeletal pain on long-term opioid medication, it was found that pain interference associated with family, work, and health had the most significant psychosocial impact on their lives (Lehinger et al., 2022). The physiological effects of chronic pain also play an essential role as it relates to decreased functionality. Individuals with chronic pain report "increased difficulty performing activities of daily living, decreased social engagement, and increased work limitations" (Yong et al., 2022, p. e331). The functional limitations experienced as a direct result of chronic pain "contributes to an estimated \$560 billion each year in direct medical costs, lost productivity, and disability programs" (Dahlhamer et al., 2018, p.1005). These staggering statistics highlight the dire need to improve chronic pain treatment plans.

## **Optimizing Standard Practice**

Chronic pain is a debilitating disease process that requires a multi-modal treatment pathway to promote increased quality of life and overall well-being. Since pain is subjective, many chronic pain patients suffer in silence and find it difficult to access resources that address their mental health needs due to limited programs focused on improving chronic pain management. To optimize the standard of care, chronic pain management should incorporate a form of coaching to educate patients on techniques that can help them manage their symptoms appropriately outside of traditional pharmacological medications. Understanding the brain and pain connection is essential to providing comprehensive care to this patient population.

Optimal treatment of chronic pain requires an integrative approach due to the multifactorial effects on quality of life. More specifically, chronic pain management that incorporates psychosocial techniques geared toward increasing chronic pain patients' coping mechanisms and pain acceptance, has proven to be efficacious. A study that utilized adaptive coping strategies for chronic pain management found that these techniques helped patients develop behaviors that continued to be beneficial even after the intervention was complete (Greenberg et al., 2021). Greenberg et al. (2021) write, “Approach-based coping strategies that promote confrontation with pain sensations (e.g., mindfulness, acceptance, and resiliency) are associated with improved emotional and physical function” (p. 820). Developing positive coping skills is an essential component of the long-term management of chronic pain. This notion is further supported when Greenberg et al. (2021) assert:

One potential reason for the sustained benefit following the intervention is their multimodal structure, which includes relaxation strategies, CBT, and positive psychology skills to enhance coping. Such multimodal integrative interventions allow individuals to

try various strategies to manage symptoms, as well as implement those that are best suited for their individual profile. (p. 825)

This approach is essential for healthcare providers to understand, as there is no “one size fits all” guide to managing chronic pain.

An additional benefit to promoting integrative therapies is the potential effects of decreasing patients’ reliance on opioid medication. When chronic pain patients improve their coping skills and utilize integrative therapies to manage their symptoms, they tend to use less opioid medication than patients who receive traditional pharmacological management alone (Zeliadt et al., 2022). This finding further highlights the need to optimize current chronic pain treatment practices.

### **Project Purpose**

The 3M Chronic Pain Coaching Model was created to bridge the gap between pharmacological pain management and the psychosocial needs of chronic pain patients. The main objectives of this coaching curriculum were to help these patients engage in self-reflection, learn positive coping mechanisms, develop pain acceptance, create personal goals, and share experiences without judgment.

Providing chronic pain patients with the tools necessary to increase their self-efficacy and empower them to take control of their lives is essential. The mission of the 3M Chronic Pain Coaching Model was to develop a new standard of management that incorporates coaching as an adjunctive therapy in treating chronic pain. An enormous body of evidence highlights the benefits of health coaching, including results that show improvement in how chronic pain patients perceive and cope with their debilitating diagnoses (Brandel et al., 2022). The 3M Chronic Pain Coaching Model provides a framework that all healthcare facilities can utilize to improve the quality of life of chronic pain patients and their families.

## **Project Description and Clinical Significance**

This quality improvement project occurred at a comprehensive neurosurgery and interventional pain management practice. The previous virtual chronic pain coaching group at this practice was developed in 2020 as a direct result of the Covid-19 pandemic due to a lack of in-person support and resources. Since its inception, patients have utilized this platform to help manage their chronic pain symptoms by engaging in mindfulness and goal setting. The original coaching group lacked a formal structure, and admittance to the program occurred on a rolling basis. The 3M Chronic Pain Coaching Model was developed to focus on mindfulness, meditation, and motivation to continue providing an integrative approach to chronic pain management. The format of the coaching group remained as weekly 60-minute virtual sessions led by a chronic pain NP, a provider at the practice and dually certified as an integrative health and wellness nurse coach. Each concept was discussed over two weeks and consisted of specific exercises that would be reviewed each coaching session. The coaching curriculum also included a script for the provider hosting (see Appendix C). The 3M Chronic Pain Coaching Model curriculum consists of the following topics:

- Week 1: Mindfulness: The Art of Observation
- Week 2: Mindfulness: The Art of Breathwork
- Week 3: Meditation: The Art of Guided Meditation
- Week 4: Meditation: The Art of Body Scanning
- Week 5: Motivation: The Art of Self-Efficacy
- Week 6: Motivation: The Art of Consistency

During the coaching sessions, participants were given guidance on how to create SMART goals to assist them in writing their own personal pain management goals. Each session

concluded with an uplifting quote, and participants were emailed a PDF document summarizing the information discussed (See Appendix F).

For this specific quality improvement project, the selection criteria included the following: patient at the practice for a minimum of one-year, chronic pain diagnosis, at least 21 years of age, and a history of long-term opioid use. The main goal for developing and implementing this coaching model was to gain enough patient engagement and positive feedback to make these coaching sessions an official practice offering. The clinical significance of this quality improvement project was to highlight the benefits of an integrative approach to chronic pain management and illustrate how health coaching can potentially improve patients' perception of pain, leading to a meaningful reduction in opioid use. On a larger scale, the general target audience for the 3M Chronic Pain Coaching Model is all chronic pain patients.

### **Literature Review**

A literature search was conducted using PubMed and CINAHL databases to identify English-published studies on health coaching, mindfulness, meditation, motivation, pain acceptance, and pain coping strategies for chronic pain management. The search criteria included the following filters: full text, abstract available, and was conducted from February 2022 through February 2023. Keywords that were utilized for the search include: (a) chronic pain management AND health coaching, (b) chronic pain AND mindfulness, meditation OR mindfulness, (c) motivation AND chronic pain, and (d) pain acceptance AND chronic pain.

### **Theoretical Framework**

The 3M Chronic Pain Coaching Model was inspired by the underpinnings of the transtheoretical model (TTM). This framework promotes motivation and self-efficacy to influence behaviors that enhance health and wellness. The TTM was developed in 1977 by the works of Prochaska and DiClemente. The TTM integrates psychotherapy and behavior change

theories and is often utilized for motivational interviewing because it focuses on patients' willingness to make behavior-related changes to their health (Prochaska, 2008). The primary constructs of the TTM incorporate "stages of change, processes of change, decisional balance, and self-efficacy for behavior change" (Burbank & Riebe, 2002, p. 62). The stages of change are broken down into the following components:

**precontemplation** – the stage in which the individual is not intending to take action in the foreseeable future (usually measured as the next 6 months). The individual may be at this stage because he or she is uninformed or underinformed about the consequences of a given behavior.

**contemplation** – the stage in which people are intending to take action in the next 6 months. This stage is categorized by considerable ambivalence.

**preparation** – the stage in which an individual intends to take action in the immediate future (usually measured as the ensuing month)...He or she generally has a plan of action.

**action** – the stage in which the individual has made specific, overt modifications in his or her behavior within the preceding 6 months.

**maintenance** – the stage in which the individual is working to prevent relapse but does not need to apply change processes as frequently...Such a person is increasingly confident that he or she can sustain the changes made.

**termination** – the stage at which individuals have zero temptation and 100% self-efficacy. No matter what situation they face, they are confident they will continue their healthy behavior [and] ideally, their healthy behavior has become automatic. (Prochaska, 2008, p. 845-846.)

This theoretical framework is conducive in patients labeled as resistant to change, non-compliant, and unmotivated because it focuses on behavior change that occurs over time at the patient's self-regulated pace (Prochaska, 2008).

Health coaching is often defined as “a client-centered process to facilitate and empower the client to achieve self-determined goals related to health and wellness (Jordan et al. (2015)” (Rethorn & Pettitt, 2019, p. 1355). The behavioral interventions incorporated into health coaching are based primarily on the constructs of the transtheoretical model (Rethorn & Pettitt, 2019). Prochaska (2008) writes, “The first principle in these treatments is to help patients set realistic goals. It is not realistic for patients in precontemplation to progress immediately to action” (p. 848). A significant component of motivating patients to change their behavior is goal setting. In relation to chronic pain management, patients’ readiness to change or improve their health and well-being is essential in their desire to participate in a coaching program. To further elaborate on this concept, a qualitative study was identified that utilized the Enhanced Theoretical Model Intervention (ETMI) for chronic low back pain. This study revealed that identifying and addressing patients' expectations before implementing a physiotherapy program made them feel more confident in starting a new intervention to reduce their pain (Feldman et al., 2022).

Another study that utilized the TTM as the foundation of their intervention aimed to evaluate the effect of a transtheoretical model-lead home exercise intervention (TTM-HEI) on exercise adherence, knee osteoarthritis symptoms, and knee function in older adults (Wang et al., 2020). The methodology was an assessor-blinded and cluster-randomized study that included 189 participants. The results found that the TTM-HEI could “significantly improve exercise adherence, knee osteoarthritis symptoms (both pain and stiffness), and physical function in the



long-term, compared with normal exercise guidance” (Wang et al., 2020, p. 11). Wang et al. (2020) further explain the benefits of the transtheoretical model when they write:

This model provides essential guidelines for intervention programs because the overall process consists of independent variables that individuals should adopt for progression and improvement...As an individual progresses through the stages of the TTM, the perceived benefits of the behavior increase while the perceived barriers of the behavior decrease. (p. 3)

Similarly, Evans et al. (2021) investigated the relationship between the stages of change, psychological distress, pain catastrophizing, and functional disability in veterans with chronic pain. The results of this study identified a significant difference in pain catastrophizing dependent upon the stage of change the veteran related to. Evans et al. (2021) assert:

Motivation is a complex psychological process that drives goal-oriented behavior, such as the self-management of chronic pain, which is directly related to pain treatment outcomes. Developing healthy coping behaviors and maintaining these changes is challenging and unlikely to occur without enough motivation. (p. 6)

This idea further strengthens the evidence that motivation for chronic pain self-management is essential for patients to improve their pain perception. The 3M Chronic Pain Coaching Model curriculum focuses on motivation because this psychological desire to improve chronic pain symptoms is necessary to implement the techniques taught in the 6-week program.

### **Health Coaching**

The role of the health coach has emerged as a way to mitigate the chronic disease burden in the United States. Research has identified that registered nurses are the most equipped medical professionals to coach chronic pain patients. Their educational training encompasses a thorough understanding of individuals' physical and mental well-being. The foundation of the nursing

model is based upon viewing the patient as a whole and not just a disease process. This understanding is vital to health coaching and the management of chronic pain (Barr & Tsai, 2021). The American Holistic Nurses Certification Corporation created the health and wellness nurse coach board certified (HWNC-BC) designation. It was officially recognized by the American Nurses Credentialing Center (ANCC) on 2/25/2013 (ANCC, 2023). It allowed registered nurses and advanced practice registered nurses to be formally trained in motivational techniques, cognitive behavioral therapy, and communication tactics to empower patients to improve their state of health (Ross et al., 2018).

NPs dually certified as health coaches are the ideal providers to develop comprehensive treatment plans and provide education to increase patients' self-efficacy. Ross et al. (2018) utilized a cross-sectional online survey to assess the most prevalent health conditions treated by currently certified nurse coaches. This study identified that most certified nurse coaches were nurse practitioners and that their specific patient population included the management of complex disease processes, including chronic pain.

In regards to chronic pain management, health coaching as a treatment modality has demonstrated effectiveness in improving patients' perception of pain. A systematic review and meta-analysis by Prior et al. (2022) examined the effects of health coaching on pain and disability due to hip and knee osteoarthritis and low back pain. The combined data collected from 17 studies identified that health coaching helped to reduce pain intensity and disability from low back pain and osteoarthritis of the knee. Although the results illustrate the potential benefits of health coaching as it relates to pain, the results of this study were not statistically significant enough to make official claims. The term "health coaching" can encompass several different modalities, reducing the guidance's efficacy. Other limitations identified in this study include

low participant numbers in the studies selected for the meta-analysis and no standard health coaching guideline or framework.

Similarly, Amorim et al. (2019) examined the efficacy of a patient-centered physical activity intervention program supported by health coaching to reduce care-seeking, pain, and physical activity limitations in chronic low back pain patients. The study design was a pilot randomized controlled trial with blinded outcome assessment and included 68 participants. Although the study results did not reach statistical significance between the control and the intervention group, participants reported that the coaching sessions were beneficial in motivating them to increase their physical activity. These results provide positive implications for future studies focused on the impact of health coaching and improved patient outcomes, specifically regarding chronic pain management.

Rethorn et al. (2020) also evaluated the effects of a health and wellness coaching (HWC) program on individuals with chronic pain. The study design was a retrospective, nonrandomized analysis of participants enrolled in a 12-month comprehensive telephonic HWC program that integrated “mind-body connection, neuroplasticity, self-compassion, strengths and values, and mindfulness” (p. 3). There were a total of 181 participants that completed the intervention in its entirety. The pain outcomes questionnaire (POQ) is a multidomain pain treatment outcome instrument utilized at baseline, six months, and 12 months. The domains measured in the questionnaire were mobility, activities of daily living, negative affect, vitality, and fear of activity (Rethorn et al., 2020). The POQ proved to have high reliability and validity and good internal consistency at baseline and 12 months as measured by Cronbach  $\alpha$  0.73 and 0.75, respectively (Rethorn et al., 2020). The study's results indicated statistically significant improvements in all variables except for pain-related fear, and participants reported high satisfaction with the program. The results highlighted three distinct observations:

First, we observed that HWC was associated with clinically meaningful reductions in pain intensity and pain-related interference at 6 and 12 months. Second, health and wellness coaching was associated with improved psychological pain-related functioning and physical functioning related to pain. Third, psychological and physical pain-related functioning were associated with less pain intensity over time. (Rethorn et al., 2020, p.210)

The data collected from this retrospective study highlights a need for further research on how health and wellness coaching directly affects a patient's pain response and if the duration of the coaching curriculum plays a role in patient satisfaction and reduction of pain intensity.

### **Mindfulness, Meditation, Motivation**

The themes of mindfulness, meditation, and motivation were prevalent during data collection about health coaching as a treatment modality for chronic pain management. Due to this finding, the “3M Chronic Pain Coaching Model” was developed to promote these evidence-based concepts. A qualitative study that evaluated participants' understanding of acceptance, values, and mindfulness after attendance of an Acceptance and Commitment Therapy (ACT) based pain management program, found that mindfulness strategies helped participants deal with the everyday stresses of living with chronic pain. This study was a component of a larger randomized controlled trial evaluating the multidisciplinary pain management program that combined ACT-based intervention and physiotherapy of people attending a hospital-based pain clinic for chronic pain. Eleven individuals who completed at least 50% of the initial pain management program were later asked to participate in this study, comprised of four focus groups and select interview questions (Casey et al., 2020). The above finding is imperative because it highlights how mindfulness-based interventions can improve pain perception.

In order to understand the brain and pain connection, Brandel et al. (2022) discuss how mindfulness and meditation affect brain activity on neuroimaging. Alpha waves, associated with a more relaxed mental state, are increased on EEG during mindfulness-based intervention than at baseline (Brandel et al., 2022). This finding highlights scientific evidence that mindfulness-based interventions positively affect the brain and that more research is needed to solidify their use in treating chronic pain. Brandel et al. (2022) further echo this idea when they assert:

Future studies should analyze the effect of mindfulness-based interventions on spatiotemporal dynamics, brain activation patterns, and connectivity in chronic pain patients using multiple modalities, including fMRI and EEG... The ease and brevity of mindfulness meditation make it suitable for incorporation into patients' daily routines and serve as a promising option for mitigating pain and reducing disability. (p. 277)

Utilizing this data can help future studies to optimize chronic pain treatment and develop evidence-based protocols.

The *Mindfulness-Oriented Recovery Enhancement* (MORE) was created as an integrative intervention for chronic pain and opioid misuse (Garland et al., 2019). This program was designed to increase positive psychological processes and decrease dependence on opioid use for chronic pain management. In the Stage 2 randomized controlled trial of MORE, ninety-five participants on long-term opioid treatment for chronic pain were randomized to 8 weeks of MORE or support group (SG) intervention (Garland et al., 2019). The MORE intervention was conducted over eight weeks, with 2-hour weekly sessions of 8-12 participants. The mindfulness training included breathing, body scan techniques, and other therapeutic skills to increase positive psychosocial health behaviors. The support group intervention consisted of a similar structure, with two-hour conventional support group sessions over eight weeks, with 12 participants, and reviewed general topics concerning chronic pain. Both groups were led by

masters-prepared social workers and were held in a primary care clinic (Garland et al., 2019). The results of this study revealed that participants enrolled in the MORE intervention group reported “significantly greater reductions in pain severity by posttreatment and opioid misuse risk by 3-month follow-up and significantly greater increases in positive psychosocial health” (Garland et al., 2019, p. 927). Pain severity was measured utilizing the Brief Pain Inventory (BPI) scale, a well-validated tool for assessing acute and chronic pain. Opioid misuse risk was calculated with the Current Opioid Misuse Measure (COMM) in which participants responded to 17 items on a 5-point Likert scale that assessed how often in the past 30 days they engaged in drug-related behaviors associated with opioid misuse (Garland et al., 2019). The results from this study analysis highlight how the MORE intervention can potentially increase patients’ perception of pain and reduce their risk of opioid misuse.

Similarly, a secondary analysis of a pilot randomized controlled trial illustrated that mindfulness-based interventions could promote positive psychosocial behaviors that lead to decreased pain responses. This study examined group-delivered mindfulness meditation, cognitive therapy, and mindfulness-based cognitive therapy for chronic low back pain (Day et al., 2020). The results of this study highlighted that mindfulness combined with cognitive behavioral therapy played a significant role in reducing pain catastrophizing. Pain catastrophizing is an exaggerated, negative cognitive response to actual or anticipated pain. When this response is reduced, it leads to a more positive mindset, demonstrated by significant improvements in pain interference (Day et al., 2020).

Motivating chronic pain patients to take control of their lives is an integral component of chronic pain management. Many chronic pain sufferers become numb to their disease process and feel their lives must be curtailed around their pain symptoms. They often lack positive coping skills and are embarrassed to speak in-depth about their feelings. An interesting study

evaluating patient experiences with integrative medical group visits (IMGV) illustrated that these settings positively impacted patients suffering from chronic pain and depression (Lestoquoy et al., 2017). In this study, 20 participants identified as low-income minority adults with chronic pain and comorbid depression, attended ten sessions of IMGV with a primary care provider and a meditation instructor and four subsequent focus groups to gather data. The integrative medical visits focused on mindfulness-based stress reduction and evidence-based integrative medicine (Lestoquoy et al., 2017). The information gathered from the focus groups identified the following common themes:

- chronic pain is isolating
- group treatment contributes to better coping with pain
- loss of control and autonomy because of the unpredictability of pain as well as dependence on medication and frequent medical appointments
- groups improve control over one's health condition
- navigating the healthcare system and unsatisfactory treatment options

(Lestoquoy et al., 2017, p. 33)

These integrative medical group visits gave patients who typically would not have access to integrative therapy the opportunity to experience the benefits of mindfulness and increase self-efficacy over their disease process.

Similarly, an article reviewing the literature on enhancing motivation for initial adherence to non-pharmacological treatment for chronic pain and headache disorders identified a relationship between self-efficacy and treatment adherence (Ankawi et al., 2019). Ankawi et al. (2019) highlighted the importance of identifying what motivates patients to engage in non-pharmacological modalities for chronic pain and barriers to treatment. Self-efficacy was categorized as a “primary predictor of readiness to change and maintain new behaviors” (Ankawi

et al., 2019, p.75). Empowering patients to utilize available resources to manage their chronic pain and reducing barriers to treatment by offering telehealth services can positively impact patient engagement and increase the benefit of integrative therapies.

### **Perception of Pain**

How patients perceive their disease process directly correlates to how they cope with their physiologic symptoms. Chronic pain patients who learn to accept their pain often have better behavioral and functional outcomes (Huang, 2022). A mixed methods pilot randomized controlled trial that examined this idea analyzed the effects of Focused Acceptance and Commitment Therapy (FACT-CP) on self-reported physical disability and chronic pain acceptance (Kanzler et al., 2022). The results of this study illustrated that the acceptance of chronic pain significantly increased in the intervention group, and self-reported physical disability improved at the 6-month follow-up. This finding further supports the notion that “acceptance is a powerful mechanism in improving the functioning and emotional health in people with chronic pain” (Kanzler et al., 2022, p. 10). Education also plays a significant role in how patients perceive their pain. According to Ferlito et al. (2022):

pain education is a treatment that consists of educational sessions, aimed at an accurate explanation of the neurophysiology and neurobiology of pain and the process of pain modulation by the central nervous system. The goal is to modify those beliefs, rooted in the psychosocial background of the patient, which feed the persistence of chronic pain, remodeling the perception of pain itself to draw positive effects. (p. 2)

Combining mindfulness-based interventions and expert education provided by a certified health coach gives patients the tools necessary to take control of their health.

The research presented in the review of literature provides extensive evidence of the potential benefits mindfulness-based coaching can have on chronic pain patients. However, these



studies only illustrate preliminary guidance and future studies with long-term follow-up are essential to developing official guidelines for treatment (Day et al., 2019).

## **Methodology**

### **Approval Process**

The approval process for this QI project began in February 2022 when the initial idea for this program was presented to the practice site NP and founder of the original virtual coaching group. The NP at the practice was selected to serve on the Scholarly Project Committee due to her expertise in the pain management specialty. She serves as Master Faculty for the American Society of Pain Management Nursing and Co-Chair for the Pain Management Specialty Practice Group for the American Academy of Nurse Practitioners. She is also board certified as an Integrative Health and Wellness Nurse Coach. The author of this paper was absent from all coaching sessions and did not have access to patient-sensitive data. Due to these reasons, this quality improvement project did not qualify as human subjects research and did not require approval from the Institutional Review Board (IRB). All participation in this program was voluntary. Information collected from electronic surveys and pre-and post-intervention questionnaires was compliant with HIPPA regulations and coded by the nurse practitioner at the practice location before this author received the data.

### **Project Risks and Benefits**

A SWOT analysis was conducted to determine the feasibility and sustainability of this quality improvement project. This analysis identified internal strengths and weaknesses and external opportunities and threats to implementing this program.

#### **Strengths**

- coaching group led by a pain management clinician (NP) employed at the practice (expert on disease process and familiar with patient population)

- bridge the gap between medical and pharmacological pain management and the emotional needs of chronic pain patients
- identify coping mechanisms that will be essential to improving patients' perception of pain
- an innovative approach to providing comprehensive chronic pain management with all services in one setting
- increase patients' motivation to manage their disease process
- virtual coaching format to minimize the transportation burden of patients
- complimentary integrative therapy to primary treatment
- opportunity to connect patients who share similar experiences

#### **Weaknesses**

- lack of resources to provide coaching services to all chronic pain management patients at the practice
- no official budget for NP-led coaching group to provide ongoing or continuous services

#### **Opportunities**

- create a new standard for an integrative approach to chronic pain management
- collect valuable data on how chronic pain management coaching will affect opioid use
- utilization of the newly updated "Health and Well-being Coaching" Category III CPT code to track and identify emerging services aimed at clinical efficacy (American Medical Association [AMA], 2022)

#### **Threats**

- lack of patient commitment to participate in an ongoing pain management coaching group
- loss of revenue for NP during coaching sessions

- lack of resources to create a budget for coaching sessions that are not currently billable
- older adult population may lack the technology to participate in a virtual coaching group
- unrealistic patient expectations of the pain management coaching group leading to patient dissatisfaction and low participation

With current research highlighting the benefits of coaching and its positive effect on chronic pain, the need for coaching as a standard pain management modality has become more evident. A qualitative study that further expands on this concept found that the capacity to change behavior through consistent open contact with thoughts and feelings helped improve the quality of life for chronic pain management patients (Egan et al., 2017). One of the main obstacles to official implementation, is the need for a budget for the NP-led coaching group. Currently, the coaching group is a limited service that is only offered once a week in a 60-minute time slot, which is not accessible to all patients that may want to participate.

On July 2, 2022, the “Health and Well-Being Coaching” Category III CPT code became effective. The criteria have since been revised to include cognitive behavioral therapy, motivational strategies, and health education (AMA, 2022, p. 3). Category III codes were created as temporary codes for emerging services and technology to collect data and identify advancements in healthcare delivery. Incorporating these codes into practice will assist in tracking data that will be imperative for future billing purposes.

### **Project Timeline**

The curriculum development took several weeks of in-depth analysis of past and present data, which examined how coaching is integral in improving the well-being of chronic pain patients. The final draft of the 3M Chronic Pain Coaching Model Curriculum was approved in June 2022. The coaching flyer and participant recruitment letter were sent to patients that met eligibility criteria in early July 2022 (see Appendices A & B). Session one of the coaching group

commenced on July 27, 2022, and continued through September 7, 2022. Session two of the coaching group began on November 2, 2022, and continued through December 21, 2022. The collection and analysis of data occurred from September 2022 through February 2023.

### **Project Budget**

Regarding the financial impact on the practice, this coaching group currently has no official budget. The chronic pain NP is dually certified as a health coach and is not compensated for her services. Due to this limitation, the coaching group, which has proved successful over the past two years, is only offered on a first-come, first-serve basis of limited capacity.

No expenses were acquired while conducting the 3M Chronic Pain Coaching Model since this author researched and created the curriculum. The pain management NP utilized her company-sponsored Zoom account to host the virtual sessions. For this chronic pain coaching group to become an official practice offering, there is a projected annual budget of \$24,794.00. This specific dollar amount includes the hours it will take for the principal investigator (pain management NP) to conduct research and update the curriculum each year at her hourly wage. This proposed budget also incorporates the cost of hosting the virtual platform, marketing, and potential wages lost due to blocking the PI's schedule from patient appointments in order to host the coaching sessions each week.

### **Phases of the Project**

#### **Phase I – Needs Assessment**

The previous coaching group led by the pain management NP has been instrumental in engaging patients in goal-setting and mindfulness; however, it needed a formal structure. The 3M Chronic Pain Coaching Model aimed to restructure the practice's existing chronic pain coaching group, increase patient engagement, and collect qualitative and quantitative data. The data collected would be utilized to present the program's potential benefits to the medical group's

board members to gain organizational support and make this curriculum an official practice offering to all chronic pain patients at the practice.

### **Phase II – Obtaining support from stakeholders**

Gaining support from the pain management NP to restructure the original coaching group was the initial approval required to implement the project. She has sole authority over the program and dictates any research involving her current patient panel.

### **Phase III – Initial implementation steps**

Once the pain management NP approved the final draft of the coaching curriculum, participants were recruited for this pilot coaching session by utilizing a convenience sample of patients already enrolled in the previous coaching group. Patients were informed of this pilot coaching session via a recruitment letter highlighting the mission of the 3M Chronic Pain Coaching Model, disclosing that this coaching group would not provide medical advice and was for educational purposes only (See Appendix B).

### **Phase IV – Ongoing implementation steps**

A thorough evaluation occurred after the implementation of the first six-week coaching session. This included a review of the pre-and post-Pain Self-Efficacy Questionnaire (PSEQ) and feedback collected from the post-coaching session survey. The second coaching session had minimal revisions based on patient recommendations. This included adding a goal-setting worksheet and changing the body scan meditation video.

### **Phase V – Project Evaluations and Results**

The results of the 3M Chronic Pain Coaching Model pilot study highlight data collected from two six-week coaching sessions. The first coaching session occurred from July 27, 2022, through September 7, 2022, with no coaching group on August 10<sup>th</sup>, 2022. There were a total of 5 participants that completed the first coaching session. All participants were White, female, on

long-term opioid medication for chronic musculoskeletal pain, and between 50 and 80 years of age.

The PSEQ was utilized as a measurement tool in this pilot coaching group because it was developed to assess the level of confidence in performing activities of daily living in individuals with chronic pain (Pain Self-Efficacy Questionnaire [PSEQ], 2021). The PSEQ is a ten-item questionnaire in which each question is ranked from 0 “Not at all confident” to 6 “Completely confident.” The scores range from 0-60, where “high scores are strongly associated with clinically-significant functional levels and provide a useful gauge for evaluating outcomes in chronic pain patients” (PSEQ, para 5, 2021). The PSEQ was studied to have high internal consistency as evidenced by a 0.92 Cronbach’s alpha and high test-retest ability in 3 months (PSEQ, 2021). The PSEQ was also found to have high validity “reflected in high correlations with measures of pain-related disability, different coping strategies, and another more activity-specific measure of self-efficacy beliefs” (PSEQ, para 3, 2021).

The PSEQ was measured at the start of the coaching session and after the six-week program. The results from the first coaching session indicate that 100% of the participants who completed both pre- and post-questionnaires had higher PSEQ scores after the program than pre-coaching scores. However, only three out of the five participants completed both questionnaires. These three participants were documented as having 1 – 3 reported pain generators or diagnoses in their charts. Feedback from the cohort included participants needing help creating personal goals and not liking the body scan meditation video.

The feedback received from the initial coaching session led to minor revisions in the coaching curriculum that included patient guidance on how to create SMART goals, an updated body scan meditation video, and a feedback survey (See Appendix E) given after the program. The second coaching session occurred from November 2, 2022, through December 21, 2022,

with no coaching group on November 9 and 23, 2022. There were a total of 7 participants that completed this session. The demographics of the participants remained the same as the first group. However, only three participants completed the pre-and post-PSEQ. Only 33% or one of the participants had higher post-PSEQ than the other two. This participant was noted to have only one pain generator compared to the other two, who were documented to have 4 and 5 pain generators, respectively. The feedback received from the second session illustrated positive participant engagement and no changes in opioid medication usage. One hundred percent of participants who completed the coaching session reported wanting to continue the coaching group. To illustrate reported patient satisfaction, one patient responded with the following response to the feedback question, “Would you like to continue the coaching program?”

*I think every pain management program, for chronic pain patients, should include a weekly group for their patients. Especially with a medical provider from their own doctor's office. I feel "normal" in the group. I feel I can ask anything and I am not judged. Giving your chronic pain patients a weekly tool to allow them to feel "normal" for an hour a week, is a huge help in keeping the patient's mental well-being strong. I have learned so much from my medical provider's suggestions and from the other women in the group. The strength the ladies give me, even when I do not see them, helps a lot. I sometimes think to myself..."What would the group suggest I should do?" I recently missed a couple of meetings due to being sick and appointments, I complained to my family that I hated missing group. It is a highlight of my week. (Participant feedback)*

The patient feedback responses (See Appendix H) and the results of this pilot coaching program (See Appendices F & G) have illustrated a need for ongoing data collection.

## **Discussion**

Mindfulness-based interventions that increase self-efficacy have illustrated positive effects in managing chronic pain. When patients learn positive coping strategies such as breathwork, it can decrease pain interference and increase their quality of life (Anderson & Huxel Bliven, 2017). Although the results of this study illustrated no effect on the use of opioid medications for chronic pain and no consistent effect on the PSEQ score, positive patient feedback and increasing patient engagement in the coaching program show potential for improving patients' perception of pain.

### **Limitations**

Several limitations were identified with the 3M Chronic Pain Coaching group sessions. The first limitation is the need for more diversity in the participants' demographics in both sessions. The participants were recruited using a convenience sample of patients already under the care of the pain management nurse practitioner. Race, gender, age, and chronic pain diagnoses all play a role in the results, which makes the guidance not applicable to all chronic pain patients. The dates of the sessions played a significant role in participant recruitment. Session one occurred over the summer when many patients were traveling and wanted to avoid engaging in a coaching group to which they could not commit. Session two also faced the same issue because it occurred over the holiday season, which affected participants' willingness to engage fully. This was reflected in the low completion of the pre-and post-PSEQs. Similarly, the timing of the groups also played a factor regarding pain generators and symptoms. Cold weather can play a significant role in the exacerbation of pain symptoms in those who suffer from chronic musculoskeletal pain. This could explain the low post-PSEQ scores in the second coaching session compared to the session one coaching group. Despite not achieving statistical significance, the 3M Coaching Model results illustrate how complex chronic pain



management can be. The TTM highlighted that positive behavior change requires long-term intervention (Prochaska, 2008). Therefore, ongoing research and collection of data is essential.

### **Sustainability and Implications for Future Recommendations**

The 3M Chronic Pain Coaching Model is a virtual coaching program that can continue to be hosted at the practice. The curriculum was designed so that the provider leading the sessions would have all resources necessary to carry out this program long-term. A quarterly cadence was determined to be the best way to introduce this program to other patients at the practice without completely removing the previous coaching group, which was conducted in a support group style. Future research that can capture long-term quantitative data is essential to creating evidence-based guidance on how coaching can improve chronic pain management.

The aim is that more facilities will start to utilize the Health and Wellness Coaching CPT codes so that data will illustrate the need for this service to be reimbursable. Once these services reach billable status, the results of these coaching sessions can be analyzed over time and presented to the board members of this practice to make this coaching model an official practice offering. This would create a budget that can aid in updating the program to maintain relevant evidence-based data.

### **Conclusion**

Research has demonstrated a positive correlation between chronic pain management and health coaching. More specifically, health coaching focused on mindfulness-based interventions can potentially improve patients' perception of pain. The 3M Chronic Pain Coaching Model was inspired by the constructs of the TTM, which highlights that positive behavior change occurs when patients are motivated and exhibit a high level of self-efficacy.

Through six weeks of evidence-based activities on mindfulness, meditation, and motivation, the 3M Chronic Pain Coaching Model aims to improve how patients view their

disease process and cope with their symptoms. The coaching group was created to focus on non-pharmacological techniques that assist patients in creating a mind-and body-connection that bridges the gap between their primary treatment plan and their psychosocial needs.

The results of both six-week coaching sessions illustrate the potential for this program to improve the quality of life of chronic pain patients. Reiterating the dynamic manifestation of the chronic pain disease process is essential. Numerous factors contribute to an individual's pain response. Therefore, it may take multiple coaching sessions in order to collect statistically significant data. With continued research and a more robust data collection, the goal is that practice guidelines for chronic pain management will include mindfulness-based coaching as standard practice.

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## **Appendices**

### **Appendix A**

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The 3M Chronic Pain Coaching Model Flyer

**COME JOIN OUR COACHING GROUP!**

**ARE YOU LIVING WITH CHRONIC PAIN?**

**ARE YOU INTERESTED IN LEARNING INTEGRATIVE TECHNIQUES FOCUSED ON MINDFULNESS, MEDITATION, AND MOTIVATION TO HELP YOU MANAGE YOUR PAIN?**

**IF SO, THIS COACHING GROUP IS FOR YOU!**



**FORMAT: 1-HOUR VIRTUAL COACHING SESSIONS HELD ONCE WEEKLY ON WEDNESDAYS**

**OUR NEXT 6-WEEK SESSION BEGINS ON NOVEMBER 2, 2022.**

**PLEASE EMAIL ...TO SIGN UP, REGISTRATION CLOSES ON MONDAY, OCTOBER 31, 2022**

## Appendix B

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### Participant Recruitment Letter

Dear Prospective Participant,

I am writing to invite you to be a part of a quality improvement project designed to evaluate the effectiveness of a nurse practitioner-led coaching group. This coaching group will be in a similar format to our current coaching group that has been in progress for the past two years. This pilot coaching group aims to improve patients' experience of chronic pain, allowing them to increase their quality of life and overall well-being.

Remember, your diagnosis is not your destiny!

Living with chronic pain can be extremely challenging as no one can fully understand how your disease process affects your physical, mental, and emotional well-being but YOU.

Your physical demeanor may not always be a good indicator of how you are truly feeling, internally.

Oftentimes, you may “look fine,” when in fact you are not feeling that way on the inside.

This 6 -week chronic pain coaching program will explore ways to teach you how to successfully cope with your disease process. It will bridge the gap between medical pain management and your psychosocial needs.

The coaching group will utilize a curriculum developed by a Seton Hall University doctoral student that I am working with. The “3M Chronic Pain Management Model” will utilize a combination of (Mindfulness, Meditation, and Motivation) to serve as an adjunctive therapy to traditional pain management care. Through projects like this one, hopefully, we will be able to offer these programs to more patients in the future.

Chronic pain coaching is an opportunity to:

- I. Engage in self-reflection
- II. Learn and develop positive coping mechanisms
- III. Create personal goals
- IV. Share experiences without judgment
- V. Understand the brain and pain connection

Chronic pain coaching is not considered medical treatment and there will be no diagnoses or medications prescribed.

This program will run for 6 weeks. We will meet once a week for approximately an hour on Wednesday from 1-2pm. The meeting platform will be via Zoom and will require a smartphone, computer, or tablet to access the link.

If you would like to participate, please respond to this email promptly as we are offering this on a first-come, first-serve basis. I am asking that if you decide to participate, you commit to being an active member for the entire 6 - week period so that we can benefit from a cohesive group environment.

The next group is starting on **Wednesday, November 2**, and will run for 6 weeks on the following dates **11/2/22, 11/16/22, (no group on 11/9/22 & 11/23/22), 11/30/22, 12/7/22, 12/14/22, and 12/21/22**. Please let me know if you would like to participate by Monday, October **31st** so I can send the coaching group objectives to you. I have attached the coaching agreement to this email, please print, sign, and return it to the office via fax, email, or mail. If you do not wish to receive further emails regarding this offering you can decline further communication on this topic.

I look forward to providing this integrative therapy to help you take control of your chronic pain journey.

Be healthy and safe,

Nurse Practitioner, Integrative Health and Wellness Nurse Coach

## Appendix C

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### The 3M Chronic Pain Coaching Model Curriculum (For Provider)

#### The 3M Chronic Pain Coaching Model

##### Curriculum Outline and Structure (Nurse Practitioner/Nurse Coach Guide)

- Integrative therapy for chronic pain patients
- 1-hour virtual coaching sessions held once weekly for 6 weeks
- Led by a chronic pain nurse practitioner that is dually certified as a nurse coach
- Patients identified for participation have met the selection criteria for the coaching group
  - **Selection Criteria**
    - Diagnosis of chronic pain
    - Established patient at the practice for a minimum of one year
    - Patients willing to engage in the program for 6 weeks
    - Patients at least 21 years of age
    - Patient on long-term opioid medication
- Patients who have met selection criteria are emailed a recruitment letter and agreement form
- Patients are enrolled in coaching program once the agreement is signed and submitted by the deadline
  - Mutual patient understanding that there will be no medical advice given and that the main goal of coaching is for educational purposes only

##### Coaching Group Schedule (Session 2)

- Week 1: Wednesday November 2, 2022
- **Wednesday November 9, 2022 – No Coaching Group**
- Week 2: Wednesday November 16, 2022
- **Wednesday November 23, 2022 – No Coaching Group**
- Week 3: Wednesday November 30, 2022
- Week 4: Wednesday December 7, 2022
- Week 5: Wednesday December 14, 2022
- Week 6: Wednesday December 21, 2022

##### Coaching Group Curriculum:

- Week 1: Mindfulness: The Art of Observation
- Week 2: Mindfulness: The Art of Breathwork
- Week 3: Meditation: The Art of Guided Meditation
- Week 4: Meditation: The Art of Body Scanning
- Week 5: Motivation: The Art of Self-Efficacy
- Week 6: Motivation: The Art of Consistency

## Coaching Group Structure:

- **Week 1:**
  - Greeting
  - Overview of 6-week 3M Chronic Pain Coaching Group Model
    - Include the aim and purpose of the coaching group
    - Expected patient benefits
  - Patient Introductions
  - Week 1: Topic (Mindfulness: The Art of Observation)
    - Mindfulness-Based Intervention
      - Activity/Exercise
      - Patient Interaction
      - Introduction to Goal Setting
        - Goal Setting Exercise “How to Create SMART goals”
      - Closing
- **Week 2 – 5:**
  - Greeting
  - Recap of the previous week’s topic
  - Patient wins
  - Introduction of current week’s topic
    - Activity/Exercise
    - Patient Interaction
    - Goal Setting
    - Closing
- **Week 6:**
  - Greeting
  - Open discussion of the last 5 weeks
  - Introduction of the final topic
    - Activity/Exercise
    - Patient Interaction
    - Goal Setting
    - Closing remarks and opportunity for patient feedback
    - Patient instructed to fill out post coaching group survey by the deadline

**Greetings:** Nurse Practitioner Coach Introduction

**3M Chronic Pain Coaching Group Model Overview:**

Thank you for your willingness to participate in a chronic pain coaching group designed to improve your chronic pain experience. There have been numerous research studies that illustrate how the combination of traditional pain management interventions and participation in a coaching group can help individuals better cope with their chronic pain diagnosis.

Over the next six weeks, you will be guided through a series of topics and exercises that will help you to develop a deeper connection between your physical and psychosocial health.

**Patient Introductions:** Allow patients to briefly introduce themselves. (encourage them to talk about their chronic pain journey if they are comfortable)

**Week One - Mindfulness: The Art of Observation**

- **What is mindfulness?**
  - Mindfulness is the ability to focus on the present moment in a nonjudgmental way
  - It is the art of allowing your feelings to exist without letting them control your actions
  - Mindfulness is expressing gratitude for the good moments and giving grace to the moments that don't make us happy
  - It is the art of "slow living" and total awareness of our surroundings
  
- **How can mindfulness help me?**
  - Mindfulness-based interventions (MBIs) and their effect on the chronic pain experience have been studied heavily over the past several years. These studies have shown that individuals who engage in mindfulness activities are able to manage their pain more effectively
    - Other benefits of mindfulness include:
      - Decreased stress, anxiety, and depression
      - Improved social skills
      - Increased emotional regulation and self-control
      - Improved sleep
      - Decreased blood pressure and heart rate
      - Improved overall health and well-being
  
- **Tips on how to be mindful through observation:**
  - When you are experiencing pain focus on how your body reacts
    - How is your posture?
    - How is your breathing?
    - What is your emotional state? (Anger, sadness, hopelessness?)
    - What makes you feel better other than taking pain medications?
    - What are you thinking?

- Do you desire to be alone or do you prefer to be around family and friends for support?
- **Patient Exercise/Activity:**
  - **Mindful Star**
    - Let's try an activity now that you can use the next time you are having difficulty managing your pain. Close your eyes and reach for a mindful star.
      - Stop whatever you are doing (this is temporary)
      - Think about what you are feeling at the moment
      - Acknowledge what you are struggling with and accept it without judgment
      - Respond to this moment with grace and complete understanding that this moment shall pass
- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable? (This question will repeat each week)
- **Goal Setting:**
  - Review SMART criteria for goal setting
  - Ask patients to utilize SMART goal criteria to develop a goal that they would like to achieve by the end of the 6-week coaching session
    - Example SMART goal: "I will be able to walk around my block at least three times per week by the end of this 6-week program"
- **Closing:**
  - End the session with a meaningful quote
    - **"Healing is more about accepting the pain and finding a way to peacefully co-exist with it. In the sea of life, pain is a tide that will ebb and weave, continually. We need to learn how to let it wash over us, without drowning in it. Our life doesn't have to end where pain begins, but rather, it is where we start to mend." – Jaeda DeWalt**
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey
    - Remind patients to click the link on PDF

**[Mindfulness Resource Here](#)**

Pal, P., Hauck, C., Goldstein, E., Bobinet, K., Bradley, C. (2018, August 27). *5 Simple mindfulness practices for everyday life*. Mindful.

<https://www.mindful.org/take-a-mindful-moment-5-simple-practices-for-daily-life/>

**Greeting:**

**Recap:** Mindfulness: The Art of Observation

- Last week we discussed the concept of mindfulness
  - Mindfulness is the ability to focus on the present moment in a nonjudgmental way
  - It is the art of allowing your feelings to exist without letting them control your actions
  - We learned how to observe our physical and mental state during times of pain

**Patient wins:**

- Would anyone like to discuss a goal that they were able to achieve over the past week?
- If not, move on to this week's topic

**Week Two - Mindfulness: The Art of Breathwork**

- **What is breathwork?**
  - Breathwork or conscious breathing is a focused type of breathing pattern that allows you to become fully aware and engaged with your physical and psychological state
  - It involves a series of deep breaths and exhalations in a particular pattern
  
- **How can breathwork help me?**
  - Breathwork has been utilized for centuries in other parts of the world and as a foundation for yoga practices. Learning how to take control of your breathing when experiencing a pain flare-up can be a useful coping mechanism
    - Other benefits of breathwork include:
      - Improved sleep
      - Increased energy
      - Increased immunity
      - Removal of toxins
      - Improved focus
      - Reduction in anxiety
  
- **Tips on how to be mindful through breathwork:**
  - When you are experiencing pain focus on your breathing pattern
    - Are you breathing fast or slow?
    - Is your breath shallow or deep?
    - Does holding your breath for short intervals help to relieve your pain?
    - Does taking deep breaths assist in making the pain more manageable?
  
- **Patient Activity/Exercise:**
  - **Box Breathing**



- Let's try an activity now that you can use the next time you are having difficulty managing your pain.
  - I want you to close your eyes
  - Inhale through your nose for 5 seconds as you visualize yourself traveling up one side of a box
  - Hold your breath for 5 seconds as you travel across the top of the box
  - Gradually exhale through your mouth for 5 seconds as your travel down the other side of the box
  - Pause for 5 seconds as you make your way back to the starting point
- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable?
- **Goal setting:**
  - Have patients write down one personal goal that they wish to achieve by the next coaching session
- **Closing:**
  - End the session with a meaningful quote
    - **“Just breathe, you are strong enough to handle your challenges, wise enough to find a solution to your problems, and capable enough to do whatever needs to be done” – Lori Deschene**
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey

**[Breathwork Source Here](#)**

Bednarski,R. (2021, June 9). *What is breathwork & why has everyone gone crazy for it?*

<https://www.rachelbednarski.com/post/what-is-breathwork>

**Greeting:**

**Recap:** Mindfulness: The Art of Breathwork

- Last week we discussed the concept of breathwork
  - Breathwork is a conscious type of breathing that focuses on a specific breathing pattern that allows you to become fully aware and engaged with your physical and psychological state.

**Patient wins:**

- Would anyone one like to discuss a goal that they were able to achieve over the past week?
- If not, move on to this week's topic

**Week Three – Meditation: The Art of Guided Meditation**

- **What is guided meditation?**
  - Guided meditation is a practice that allows you to clear your mind and relax your body with the assistance of a narrator who guides you through the experience
  - It often utilizes sounds or visualizations to achieve a calm and centered state
  - Guided mediation can be done alone and it is also beneficial in group settings
- **How can guided meditation help me?**
  - Having access to a guided meditation during a pain flare-up can help you to reduce the stress and anxiety that comes along with feeling physical pain. There are numerous apps and YouTube videos that you can save on your cell phone to assist you during these challenging times
    - Other benefits of guided meditation include:
      - Decreased stress, anxiety, and improved PTSD
      - Improved sleep
      - Improved concentration and problem-solving skills
      - Better ability to adapt and overcome emotional distress
- **Tips on how to engage in guided meditation:**
  - When you are experiencing pain try a guided meditation exercise
    - Identify a “quiet place” in your home where you can practice daily meditation
    - Practice “stillness” – learn how to release your thoughts and clear your mind
    - Practice active listening in which you are fully engaged with the instructions of the narrator
    - When your mind wanders allow yourself a moment to refocus

- **Patient Activity/Exercise:**
  - **Guided Meditation**
    - Let’s try an activity now that you can use the next time you are having difficulty managing your pain.
    - Play guided meditation video from YouTube
      - **[Guided Meditation for Chronic Pain](#)**
        - Video is about 10 minutes in length
        - Can start video at 4:53 if short on time
- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable?
- **Goal Setting:**
  - Have patients write down one personal goal that they wish to achieve by the next coaching session
- **Closing:**
  - End the session with a meaningful quote
    - **“I refuse to let chronic pain take away my passion, my drive, and my will. Those belong to me and I will fiercely protect them” – Jill Csillag**
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey

**[Meditation Source Here](#)**

Cleveland Clinic. (2022, May 5) *Meditation, what is it, benefits & types.*

<https://my.clevelandclinic.org/health/articles/17906-meditation>

**Week 4: Wednesday, December 7, 2022, © 2023 Suzanne A. Levy**

**Greeting:**

**Recap:** Meditation: The Art of Guided Meditation

- Last week we discussed the concept of guided meditation
  - Guided meditation is a practice that utilizes narration to help you to clear your mind and relax your body

**Patient wins:**

- Would anyone like to discuss a goal that they were able to achieve over the past week?
- If not, move on to this week's topic

**Week Four – Meditation: The Art of Body Scanning**

- **What is body scan meditation?**
  - Body scan meditation is a specific type of meditation that helps us to become aware of feelings and sensations in our body that we might not pay attention to. It involves focusing on all areas of your body from your face to your feet and identifying areas of tension and muscle stiffness.
  
- **How can body scan meditation help me?**
  - Doing a body scan meditation during a pain flare-up will help you to identify specific areas of your body that can benefit from a release of tension. It will also help to redirect your negative feelings toward the physical pain that you are feeling.
    - Other benefits of body scan meditation include:
      - Increased self-awareness
      - Improved sleep
      - Decreased anxiety and stress
      - Pain reduction
      - Increased self-compassion
  
- **Tips on how to engage in body scan meditation:**
  - When you are experiencing pain try a body scan meditation exercise
    - Identify a “quiet place” in your home where you can practice daily meditation
    - Practice “stillness” – learn how to release your thoughts and clear your mind
    - When your mind wanders allow yourself a moment to refocus
  
- **Patient Activity/Exercise:**
  - **Body Scan Meditation**
    - Let's try an activity now that you can use the next time you are having difficulty managing your pain.
    - Play body scan meditation video from YouTube

- [Body Scan Meditation](#)
- Video is about 5 min long, can play entire video if time allows
  
- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable?
- **Goal Setting:**
  - Have patients write down one personal goal that they wish to achieve by the next coaching session
  
- **Closing:**
  - End the session with a meaningful quote
    - **“Chronic pain is not all about the body, and it's not all about the brain—it's everything. Target everything. Take back your life” - Sean Mackey, MD, PhD**
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey

[Body Scan Meditation Source Here](#)

Smookler, E. (2023, January 7). *Beginner's body scan meditation*. Mindful.

<https://www.mindful.org/beginners-body-scan-meditation/>

**Week 5: Wednesday December 14, 2022, © 2023 Suzanne A. Levy**

**Greeting:**

**Recap:** Meditation: The Art of Body Scanning

- Last week we discussed body scan meditation
  - Body scan meditation is a practice that helps us to focus on the feelings and sensations of all areas of our body from our face to our feet. It is useful for helping to relax muscles and reduce tension.

**Patient wins:**

- Would anyone like to discuss a goal that they were able to achieve over the past week?
- If not, move on to this week's topic

**Week Five – Motivation: The Art of Self-Efficacy**

- **What is self-efficacy?**
  - Self-efficacy is an individual's belief in his or her ability to succeed in a particular situation. It is the personal understanding that you have the necessary skills to navigate life challenges and attain your goals.
  
- **How can understanding self-efficacy be beneficial to me?**
  - Self-efficacy is essential to chronic pain management because it is needed for behavior change. Having high self-efficacy will give you the motivation you need to apply the techniques that we have learned over the past few weeks.
    - Other benefits of self-efficacy include:
      - Increased self-awareness
      - Resilience to adversity and stress
      - Healthy lifestyle habits
      - Increased self-compassion
  
- **Tips on how to build self-efficacy:**
  - When you are experiencing pain think about the following
    - Observe others – think about how participants in this coaching group have successfully managed their pain and model their behavior
    - Pay attention to your thoughts and emotions
    - Think about successful ways you have managed your pain in the past
  
- **Patient Activity/Exercise:**
  - **Evaluating Your Self-Efficacy Strength**
    - Let's try an activity now that you can use to assess your level of self-efficacy.
      - This questionnaire will help you measure your level of self-efficacy
      - The higher your score the higher your perceived self-efficacy
      - The patient will be emailed a PDF form prior to make the activity interactive

- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable?
  
- **Goal Setting:**
  - Have patients write down one personal goal that they wish to achieve by the next coaching session
  
- **Closing:**
  - End the session with a meaningful quote
    - **“People’s beliefs about their abilities have a profound effect on those abilities. Ability is not a fixed property; there is huge variability on how you perform. People who have a sense of self-efficacy bounce back from failures; they approach things in terms of how to handle them rather than worrying about what can go wrong” – Albert Bandura**
  
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey

[Self-Efficacy Source Here](#)

[Self-Efficacy Source Here](#)

Cherry, K. (2022, October 12). *Self-efficacy and why believing in yourself matters*.

Verywellmind. <https://www.verywellmind.com/what-is-self-efficacy-2795954>

Lopez-Garrido, G. (2020, August 9). *Self-efficacy theory*. SimplyPsychology.

<https://www.simplypsychology.org/self-efficacy.html>

**Week 6: Wednesday, December 21, 2022, © 2023 Suzanne A. Levy**

**Greeting:**

**Recap:** Brief discussion of the last five weeks. List topics that were previously discussed and allow for participant interaction or comments.

- Week 1: Mindfulness: The Art of Observation
  - Week 2: Mindfulness: The Art of Breathwork
  - Week 3: Meditation: The Art of Guided Meditation
  - Week 4: Meditation: The Art of Body Scanning
  - Week 5: Motivation: The Art of Self Efficacy
- 
- What topic was most beneficial to you in regard to managing your chronic pain?

**Patient wins:**

- Would anyone like to discuss a goal that they were able to achieve over the past week?
- If not, move on to this week's topic

**Week Six – Motivation: The Art of Consistency**

- **What is consistency?**
  - Consistency is a key component to achieving your goals. It requires a long-term commitment and sustained effort. It is the act of repeatedly engaging in tasks that you have set for yourself.
  
- **How can understanding consistency be beneficial to me?**
  - Consistency is essential to chronic pain management because it is needed for behavior change. Consistency is the final step to you achieving all of the goals you have set for yourself over the past few weeks.
    - Other benefits of consistency include:
      - Increased self-control
      - Increased self-confidence
      - Increased ability to sustain accomplishments
      - Increased ability to develop new habits
  
- **Tips on how to achieve consistency:**
  - When you are experiencing pain think about the following
    - What are some of the techniques that have been beneficial in managing your pain over the past few weeks?
    - How often have you utilized this technique?
    - Try this technique and continue to use it every time your pain takes a toll on your physical and emotional well-being.
  
- **Patient Activity/Exercise:**



- **Consistency Agreement Worksheet**
  - Let's try an activity now that you can use to help you remain consistent in improving your pain experience
    - Consistency requires you to continuously work toward a set goal.
    - Fill out the agreement worksheet highlighting which technique was the most beneficial to you during this coaching session.
    - Make an agreement with yourself that you will continue to utilize this technique every time you have a challenging pain experience.
    - Sign and date the sheet and keep for your personal records.
  
- **Patient Interaction:**
  - Allow time for patient engagement and discussion
    - What are some ways that you manage your pain when it becomes unbearable?
  
- **Goal Setting:**
  - What goals have you achieved during this 6-week coaching session?
  
- **Closing:**
  - End the session with a meaningful quote
    - **“Consistency: It’s the jewel worth wearing; It’s the anchor worth weighing; It’s the thread worth weaving; It’s the battle worth winning” – Charles Swindoll**
  - Email of PDF with activity/exercise, link to relatable Podcast/YouTube video, and survey

[Consistency Resource Here](#)

Cabiojina. (2021, August 9). 10 reasons why consistency is important.

<https://cabiojina.com/10-reasons-why-consistency-is-important/>

## Appendix D

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Post Coaching Group Handouts (For Participants)

### 3M Chronic Pain Coaching Model



#### WEEK ONE - MINDFULNESS: *The Art of Observation*

- Mindfulness is the ability to focus on the present moment in a nonjudgmental way
- It is the art of allowing your feelings to exist without letting them control your actions
- **Tips on how to be mindful through observation:**
  - When you are experiencing pain focus on how your body reacts
    - How is your posture?
    - How is your breathing?
    - What is your emotional state? (Anger, sadness, hopelessness?)
    - What makes you feel better other than taking pain medications?
    - What are you thinking?
- **Mindful Star**
  - Let's try an activity now that you can use the next time you are having difficulty managing your pain. Close your eyes and reach for a mindful star.

**S:** Stop whatever you are doing (this is temporary)

**T:** Think about what you are feeling at the moment

**A:** Acknowledge what you are struggling with and accept it without judgment

**R:** Respond to this moment with grace and complete understanding that this moment shall pass

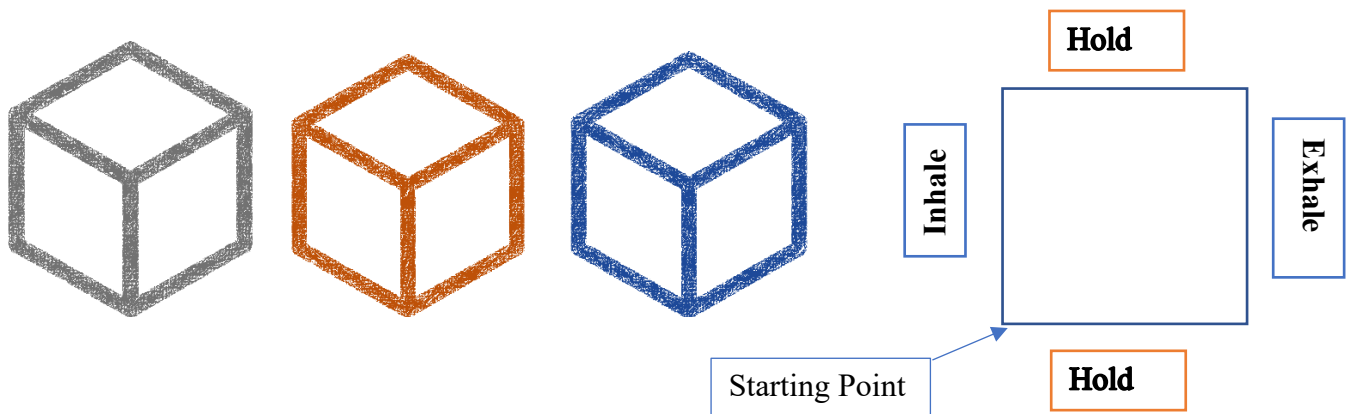
**“Healing is more about accepting the pain and finding a way to peacefully co-exist with it. In the sea of life, pain is a tide that will ebb and weave, continually. We need to learn how to let it wash over us, without drowning in it. Our life doesn’t have to end where pain begins, but rather, it is where we start to mend.” – Jaeda DeWalt**

[Click this link for more information on Mindfulness](#)

## 3M Chronic Pain Coaching Model © 2023 Suzanne A. Levy

### WEEK TWO - MINDFULNESS: The Art of Breathwork

- Breathwork or conscious breathing, is a focused type of breathing pattern that allows you to become fully aware and engaged with your physical and psychological state
- **Tips on how to be mindful through breathwork:**
  - When you are experiencing pain focus on your breathing pattern
    - Are you breathing fast or slow?
    - Is your breath shallow or deep?
    - Does holding your breath for short intervals help to relieve your pain?
    - Does taking deep breaths assist in making the pain more manageable?
- **Box Breathing**
  - Let's try an activity now that you can use the next time you are having difficulty managing your pain.
    - I want you to close your eyes
    - Inhale through your nose for 5 seconds as you visualize yourself traveling up one side of a box
    - Hold your breath for 5 seconds as you travel across the top of the box
    - Gradually exhale through your mouth for 5 seconds as your travel down the other side of the box
    - Pause for 5 seconds as you make your way back to the starting point



**“Just breathe, you are strong enough to handle your challenges, wise enough to find a solution to your problems, and capable enough to do whatever needs to be done” – Lori Deschene**

[Click this link for guidance on box breathing](#)



**WEEK THREE - MEDITATION: *The Art of Guided Meditation***

- Guided meditation is a practice that allows you to clear your mind and relax your body with the assistance of a narrator who guides you through the experience
- It often utilizes sounds or visualizations to achieve a calm and centered state
- **Tips on how to engage in guided meditation:**
  - When you are experiencing pain try a guided meditation exercise
    - Identify a “quiet place” in your home where you can practice daily meditation
    - Practice “stillness” – learn how to release your thoughts and clear your mind
    - Practice active listening in which you are fully engaged with the instructions of the narrator
    - When your mind wanders allow yourself a moment to refocus
- **Guided Meditation**
  - Let’s try an activity now that you can use the next time you are having difficulty managing your pain.

**“I refuse to let chronic pain take away my passion, my drive, and my will. Those belong to me and I will fiercely protect them” – Jill Csillag**

**[Click this link for a Guided Meditation to assist with chronic pain](#)**



**WEEK FOUR - MEDITATION: *The Art of Body Scanning***

- Body scan meditation is a specific type of meditation that helps us become aware of feelings and sensations in our body that we might not pay attention to
- It involves focusing on all areas of your body from your face to your feet and identifying areas of tension and muscle stiffness
  
- **Tips on how to engage in body scan meditation:**
  - When you are experiencing pain try a body scan meditation exercise
    - Identify a “quiet place” in your home where you can practice daily meditation
    - Practice “stillness” – learn how to release your thoughts and clear your mind
    - When your mind wanders allow yourself a moment to refocus
  
- **Body Scan Meditation**
  - Let’s try an activity now that you can use the next time you are having difficulty managing your pain.

[Click this link for a Body Scan Meditation](#)

**“Chronic pain is not all about the body, and it's not all about the brain—it's everything. Target everything. Take back your life” - Sean Mackey, MD, PhD**

### WEEK FIVE – MOTIVATION: *The Art of Self-Efficacy*

Self-efficacy is an individual's belief in his or her ability to succeed in a particular situation. It is the personal understanding that you have the necessary skills to navigate life challenges and attain your goals.

- **Tips on how to build self-efficacy:**
  - When you are experiencing pain think about the following
    - Observe others – think about how participants in this coaching group have successfully managed their pain and model their behavior
    - Pay attention to your thoughts and emotions
    - Think about successful ways you have managed your pain in the past
  - **Evaluating Your Self-Efficacy Strength**
    - Let's try an activity now that you can use to assess your level of self-efficacy.
      - This questionnaire will help you measure your level of self-efficacy
        - The higher your score the higher your perceived self-efficacy



**“People’s beliefs about their abilities have a profound effect on those abilities. Ability is not a fixed property; there is huge variability on how you perform. People who have a sense of self-efficacy bounce back from failures; they approach things in terms of how to handle them rather than worrying about what can go wrong” – Albert Bandura**

## WEEK SIX – MOTIVATION: *The Art of Consistency*



Consistency is a key component to achieving your goals. It requires a long-term commitment and sustained effort. It is the act of repeatedly engaging in tasks that you have set for yourself.

- **Tips on how to achieve consistency:**
  - When you are experiencing pain think about the following:
    - What are some of the techniques that have been beneficial in managing your pain over the past few weeks?
    - How often have you utilized this technique?
    - Try this technique and continue to use it every time your pain takes a toll on your physical and emotional well-being.
  - **Consistency Agreement Worksheet**
    - Let's try an activity now that you can use to help you remain consistent in improving your pain experience
      - Consistency requires you to continuously work toward a set goal
      - Fill out the agreement worksheet highlighting which technique was the most beneficial to you during this coaching session
      - Make an agreement with yourself that you will continue to utilize this technique every time you have a challenging pain experience
      - Sign and date the sheet and keep for your personal records

**“Consistency: It’s the jewel worth wearing; It’s the anchor worth weighing; It’s the thread worth weaving; It’s the battle worth winning” – Charles Swindoll**

Date: \_\_\_\_\_

## **CONSISTENCY AGREEMENT WORKSHEET**

Name some techniques that you learned during this chronic pain coaching group that were the most beneficial in helping you manage your pain.

---

I will utilize \_\_\_\_\_ technique/s whenever I feel that I need assistance in managing a pain flare-up. My diagnosis is not my destiny and I know that I have the resources and tools necessary to get through any challenges that I may face. These unpleasant feelings are only temporary and this moment will pass.

Signature: \_\_\_\_\_



**The 3M Chronic Pain Coaching Model**

**Session 2 Feedback Questionnaire**

- 1. Did you find the group helpful? If so, how?**
- 2. Did you learn any techniques you will utilize during a pain flare-up?**
- 3. Do you think becoming more proficient in mindfulness techniques will affect your medication use?**
- 4. Would you like to continue the coaching program?**

## Appendix F

### Session 1 Results Chart

<b>Participant Demographics</b>				
<b>Session 1 (July 27, 2022 – September 7, 2022)</b>				
	Length of Chronic Pain in Years	Age	Gender Identity	Number of Pain Generators
Participant A	15	71	Female	3
Participant B	9	75	Female	1
Participant C	4	56	Female	2
<b>Pain Self-Efficacy Questionnaire Results</b>				
<b>Session 1</b>				
	Pre-Coaching PSEQ Scores		Post-Coaching PSEQ Scores	
Participant A	21		31	
Participant B	26		33	
Participant C	32		34	

**Appendix G**

**Session 2 Results Chart**

<b>Participant Demographics</b>				
<b>Session 2 (November 2, 2022 – December 21, 2022)</b>				
	<b>Length of Chronic Pain in Years</b>	<b>Age</b>	<b>Gender Identity</b>	<b>Number of Pain Generators</b>
Participant A	4	56	Female	5
Participant B	9	75	Female	1
Participant C	7	45	Female	4
<b>Pain Self-Efficacy Questionnaire Results</b>				
<b>Session 2</b>				
	<b>Pre-Coaching PSEQ Scores</b>		<b>Post-Coaching PSEQ Scores</b>	
Participant A	29		19	
Participant B	27		32	
Participant C	30		27	

## Appendix H

### Patient Response Chart

Pat Responses to Feedback Questions	
<b>1. Did you find the group helpful? If so, how?</b>	<i>Yes, it is great to spend time with people who understand you. People you do not have to explain yourself to. It is great to hear suggestions on how to cope with pain and challenges. Also, great to learn techniques to calm your mind and thoughts. It is also nice to be able to communicate with your medical provider more often and on a different level.</i>
<b>2. Did you learn any techniques you will utilize during a pain flare-up?</b>	<i>Yes, I'm trying to be more mindful of my breathing when I get "worked up" from the pain. Also, short meditation exercises are helpful to know. I have not used the short meditation exercises often but the breathing techniques I have.</i>
<b>3. Do you think becoming more proficient in mindfulness techniques will affect your medication use?</b>	<i>I do not. Maybe if I used anxiety or depression medication it would but not for pain. I do not use more pain medicines when my mind gets "worked up" but will use breathing techniques.</i>
<b>4. Would you like to continue the coaching program?</b>	<i>Yes, it's so great to have a space where people understand exactly what I am going through. This hour makes me feel normal</i>