

# Health Education Planning

HLED 3271

## **Fibromyalgia:**

## **Easing Pain by Reducing Stress**

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# 1-Pre-Planning

## Description

Fibromyalgia is a condition that has many symptoms including widespread pain all over the body, sleep problems, fatigue, as well as emotional and mental anguish.<sup>1</sup> People who suffer from fibromyalgia may have abnormal pain perception, which makes them more aware of the pain. So far, the cause of this condition is not known, however it can be managed effectively.

## Signs and Symptoms

Most common symptoms of fibromyalgia are:<sup>1</sup>

- Pain and stiffness all over the body
- Fatigue and tiredness
- Depression and anxiety
- Sleep problems
- Problems with thinking, memory, and concentration
- Headaches, including migraines

## Other Symptoms

These are less common and include the following symptoms:<sup>1</sup>

- Tingling or numbness in the hands and feet
- Pain in the face or jaw, including temporomandibular joint syndrome (TMJ)
- Digestive problems that include abdominal pain, bloating, constipation, and even irritable bowel syndrome (IBS)

## Diagnosis

Patient's history, physical examination, X-rays, and blood work are usually used by doctors to determine if a patient has fibromyalgia.<sup>1</sup>

## Treatment

Fibromyalgia is treated by a doctor or team of healthcare professionals specialized in fibromyalgia treatment and arthritis (rheumatologists.)<sup>1</sup> Medication and self-management strategies can be used to effectively manage fibromyalgia. These treatments include:<sup>1</sup>

- Medications, over-the-counter pain relievers and prescription drugs
- Aerobic and muscle strengthening exercises
- Educational classes for the patients
- Stress management techniques such as meditation, yoga, and massage
- Good sleep habits to improve the quality of sleep
- Cognitive behavioral therapy (CBT) to treat depression. CBT is a talk therapy intended to change the way people act or think

## Distribution

Fibromyalgia is a common chronic syndrome. In the U.S.A., about 10 million people suffer from it, and worldwide approximately 3-6% of the population have it.<sup>2</sup> Women have the lion share with 75-90%. Fibromyalgia cases in women is two to seven times higher than in men.<sup>(10,11)</sup> In men and children, it occurs across ethnic groups. The condition runs in families between mothers and their off springs.<sup>2</sup> In general, the diagnosis happens between the ages of 20-50 years, and the chances of it increase with age. Consequently, by age 80, approximately 8% of the population have diagnosed with fibromyalgia.

## Determinants

Following are the key risk factors that increase the chances of getting fibromyalgia. While most of them are social and environmental determinants, obesity can be considered as a behavioral determinant since it can be modified through lifestyle changes.

- Age increases the chances of getting this condition.<sup>1</sup>
- Having Lupus or rheumatoid arthritis.<sup>1</sup>
- Gender: Women are twice as likely to get fibromyalgia than men.<sup>1</sup>
- Having stressful or traumatic events, such as car accidents, and post-traumatic stress disorder (PTSD).<sup>1</sup>
- Repetitive injuries. For example, a repetitive stress on a joint, such as the knee.
- Exposure to illness such as viral infections.<sup>1</sup>
- Having a family history of fibromyalgia.<sup>1</sup>
- Obesity increases the chance of acquiring fibromyalgia.<sup>1</sup>
- Early life adversity to pain, stress, and emotional problems could increase the risk of developing fibromyalgia.<sup>3</sup>
- Low level of education, low socio-economic status, and divorce increase the chances of acquiring the condition.<sup>6</sup>

Since obesity can be modified through healthy lifestyle specifically the diet part of it, I was hoping to come across educational programs that provide the link between diet and fibromyalgia. However, I did not. Stress and emotional problems are risk factors of fibromyalgia and are unavoidable aspects of life. A lack of coping with stress and negative emotions is a behavioral risk. Therefore, I thought that fibromyalgia patients may benefit from learning skills about managing stress and emotional problems. These skills can be acquired and developed. Thus, I suggest creating programs that help patients build competencies in coping with stress and emotional problems to alleviate the symptoms of this chronic condition. Emotions can affect our thoughts and consequentially our bodies. Thus, learning how to control and use emotions in a positive way can greatly benefit fibromyalgia's patients. Furthermore, I suggest programs such as yoga and the like since they teach physical and mind activities that encourage staying in the present moment, and thus in a stress-free state that can alleviating fibromyalgia's symptoms.

## Costs

In general, fibromyalgia causes pain, disability, and a lower quality of life. Some complications for U.S patients include:<sup>1</sup>

- Individuals suffering from this condition are twice as likely to be hospitalized than those without it.
- Lower overall quality of life due to the pain and accompanying disability.
- Fibromyalgia patients have a more than three times higher risk of developing major depression than people without it.
- Higher rates of other rheumatic conditions such as osteoarthritis, rheumatoid arthritis, systemic lupus erythematosus, and ankylosing spondylitis.

Lost productivity and disability account for 75-88% of the total cost of fibromyalgia. This cost is significant as it exceeds that caused by other disorders.<sup>4,12</sup> The estimated mean cost per patient ranges from \$2,274 to \$9,573 and depending on other factors such the intensity of the symptoms, it can climb to as high as \$13,000.<sup>4,13,14,15,16</sup> Not to forget that there are hidden costs to the condition that are hard to measure. This is a huge economic burden and is comparable to other chronic conditions such as osteoarthritis, rheumatoid arthritis (RA), diabetes and hypertension.

Patients of fibromyalgia are high consumers of health care services due to the chronic nature of the condition.<sup>4</sup> There are many animosities between doctors and challenging fibromyalgia's patients. In addition, since fibromyalgia symptoms are not visible, victims of the condition experience discreditation from the health system, families, and society, which affects the patients negatively and leads to more economic and clinical difficulties.

### Problem Statement

Fibromyalgia is a chronic condition that affects about 3% of the U.S.A population and 3-6% of the worldwide population. It is more common in women, but also touches men and children across various ethnic groups. It carries a big economic burden that can reach \$ 13,000 per person as well as societal and personal burden. Stress and negative emotions can exacerbate the condition, however, educating people with this condition about stress management can have a positive impact on fibromyalgia patients. Examples of Stress management education programs include emotional awareness and expression therapy, cognitive behavioral therapies, and several forms of stress management strategies such as mindfulness, yoga, and physical activities.

### Proposing a Health Education Solution

Based on the results of a randomized clinical trial of fibromyalgia patients for pain and stress treatment from Wayne State University and The University of Michigan, I propose an Emotion Awareness and Expression Therapy (EAET) – an intervention that help patients associate their pain and symptoms to emotionally activated central nervous system(CNS) mechanisms, in order to acknowledge and express emotions related to psychological adversity.<sup>5</sup>

In addition, based on the good results of an eight-week yoga intervention that will be described below, I propose including some yoga or similar physical and mental regular activities.<sup>6</sup>

### Supporting Studies

#### First Supporting Study

The randomized clinical trial mentioned in the above paragraph, tested (EAET) benefits against fibromyalgia Education (FM) and against cognitive-behavioral therapy (CBT). The participants were 230

adults that formed 40 randomized groups to EAET, CBT, or FM. Each group got eight 90-minute sessions.<sup>5</sup>

The EAET group: Patients talked about their stressors and avoided emotions such as anger, guilt, and love, and were urged to do the same with significant people in their lives. In addition, patients practiced expressive writing and learned about the relationship between emotions and communication patterns through activities.<sup>5</sup>

The CBT sessions: Every session had brief lesson about a topic, learning and practicing a skill, and homework. An example would be self-monitoring.<sup>5</sup>

The FM education, the intent was to educate the patients about the condition, description, history, assessment, and the online resources to help them navigate through the condition.<sup>5</sup>

EAET had unquestionably better outcomes than FM Education on overall symptoms, widespread pain, physical functioning, cognitive dysfunction, anxiety, depression, positive affect, life satisfaction.<sup>5</sup> The percentage of patients improving was much higher (34.8% vs. 15.4%). In comparison with CBT, EAET significantly lowered FM symptoms and widespread pain achieving 50% pain reduction.<sup>5</sup>

### Second Supporting Study

This was an eight-week yoga intervention that included 22 women from the community who suffer from fibromyalgia.<sup>6</sup> The women participated in a 75-minute yoga class twice weekly for 8 weeks. Classes were led by a certified yoga instructor at Vidya Institute in Toronto Canada.

Hatha yoga teaches physical yoga postures that helps the mind to be in a meditation state. Its philosophy includes peace, non-attachment, and relationship to self to achieve meaningful and purposeful life. It is the right type of yoga for women with fibromyalgia because it is gentle and adaptable to one's physical abilities. Classes included traditional, modified, and restorative yoga poses, breathing exercises, short meditation, intention setting, mindful exercises, and introduction to the eightfold of yoga. The sequence and variations in the poses were adjusted for the pathophysiology of fibromyalgia patients. In addition, when in pain, posture adjustment techniques were given.

Questionnaires regarding pain, anxiety, depression was conducted pre, mid-and post program. In addition, salivary cortisol samples were taken three times a day for every practice day, before and after the yoga session.

The eight-week program helped to improve many psychological and pain associated variables. It decreased continuous pain, prevented pain from escalating, increased chronic pain acceptance, increased mindfulness, and it altered cortisol levels in women with FM.<sup>6</sup>

### Educational Program Features

Based on the above-mentioned two interventions, I recommend a program that includes two parts. The first part focuses on emotion awareness and expression therapy. Patients will participate in a 90-minute session once a week. They will learn about how to deal with emotions and stress through lessons and applied exercises that include open oral discussion with significant people in their lives. The goal is to have them build the knowledge and the practice in this area to alleviate their symptoms and manage

the pain. The second part focuses on physical and mental exercises such as yoga. Patients will participate once a week in a 75-minute session, and the goal is to learn to utilize the power of positive thinking and physical activity in order to reduce their pain and have a much better quality and outlook on life.

Furthermore, maximizing vegetable and minimizing sodium consumption can help in reducing stress.<sup>17</sup> Therefore, a secondary aim of this program will be to advise participants to incorporate more vegetables and reduce sodium intake in their diet.

## 2-Assessing Needs

### Priority Audience

In my research, I did not come across researchers examining whether there are differences between racial/ethnic minorities and white individuals with fibromyalgia. However, I learned that women are twice as likely as men to have fibromyalgia. Therefore, I would like to choose the population of females, specifically, the women population in Elgin Illinois between the ages of 18 and 65 years old.

In comparison to the United States of America, Elgin has a higher percentage of persons in poverty, which is 10.5% versus 11.7%.<sup>7</sup> Choosing this city makes sense because lower socioeconomic status is a determinant in fibromyalgia. Furthermore, since men and children suffer from fibromyalgia as well, it would be beneficial to have them as a secondary audience. This program will take place at Elgin's city public library since it is available for community use.

### Audience Characteristics

In Elgin Illinois, females constitute 50.9% of the total population.<sup>7</sup> Of those, 31% are between the ages of 18 and 65 years old. Of the Elgin population, 45% is Hispanic (22% women), 41% White (21% women), 6.3% Asian (3% women) and 6% black (3% women). Of the 25+ year-old female population, 40% have high school diplomas or higher education. In addition, 3% of the women have some type of health disability, and 7% of this population are without health insurance. Females 16 years and older make up 62% of the civilian labor. In Elgin, 11.7% are considered poor, and more than half (6%) of them are women.

I did not come across national or state programs that focus on education and exercise regarding fibromyalgia in a setting like Elgin, Illinois. However, I came across an urban randomized controlled trial of exercise and education for Individuals with fibromyalgia. The trial included physical and educational programs that can be still applied for the Elgin's population. In fact, this trial program was similar to the ideas that were mentioned earlier in the education program features section.

The urban trial included 41 fibromyalgia participants, spread over six weeks long and consisted of two exercise classes and two educational sessions per week.<sup>9</sup> Exercise classes were 30 minutes long. Each consisted of 20 minutes of walking, jogging, side-stepping, and arm exercises against water resistance, and 10-minute stretching. Educational sessions were one hour long in a group setting, immediately after physical exercising. During these educational sessions, information was provided on exercise, postural correction, activities of daily living, sleep, relaxation, medication, nutrition, and psychosocial coping



strategies. The educational sessions varied but included didactic lectures, interactive discussions, and hands-on learning.

Program outcome was assessed using a six-minute walk test, the Fibromyalgia Impact Questionnaire, a Self-Efficacy Scale, and a knowledge questionnaire. Program outcome was reassessed at three- or six-months post-program.<sup>9</sup> There was significant improvement in six-minute walk test, well-being, fatigue, self-efficacy, and knowledge. Thus, the conclusion was that both exercise and educational programs can help fibromyalgia patients in the short and long terms.

## Factors Influencing Problem Behavior

### Predisposing Factors

Some of the predisposing factors influencing not adequately managing stress and negative emotions include:<sup>8</sup>

- Negative events, stressful environments, or physical/emotional traumas.
- Psychiatric co-morbidity such as depression, anxiety, borderline personality, obsessive-compulsive personality, and post-traumatic stress disorder.
- High self-transcendence, low cooperativeness, and low self-directedness.
- Negative self-image and body image perception which leads to Low self-esteem and perceived self-efficacy.
- Reduced functioning in physical, psychological, and social spheres.

### Enabling Factors

Some of the enabling factors influencing not adequately managing stress and negative emotions include:

- Lower cognitive abilities in processing speed, attention, visuospatial and verbal memory.<sup>18</sup>
- Lack of positive effective awareness programs to manage stress and negative emotions.<sup>19</sup>
- Use less effective pain-coping strategies.<sup>19</sup>
- Have more constrained social networks.<sup>19</sup>
- lack of knowledge and skills in managing stress and negative emotion.<sup>20</sup>
- lack of a tailored plan for managing stress and negative emotions.<sup>20</sup>
- Unbalanced Lifestyle, working long working hours that leave the individuals with little or no time to work on reducing stress and negative emotions.<sup>21</sup>

### Reinforcing Factors

I was unable to find information about reinforcing factors. However, I speculate that reinforcing factors include:

- Experiencing less overall body pain.
- Enjoying a more productive and thus fulfilling life.

- Having a support group to help keep fibromyalgia patients motivated and on the right track towards self-care.

In my opinion, focusing on achieving a life with less pain through educating the population about the positive effects of leading a healthy lifestyle including aspects such as physical exercising, as well as educating them on how to achieve a positive outlook at life are key factors to support behavioral change.

### 3-Setting the Goal and Objectives

#### Program Goal

To alleviate body pain in women who suffer from fibromyalgia in the Elgin, IL community by educating them about physical and mental exercises to manage stress and negative emotions.

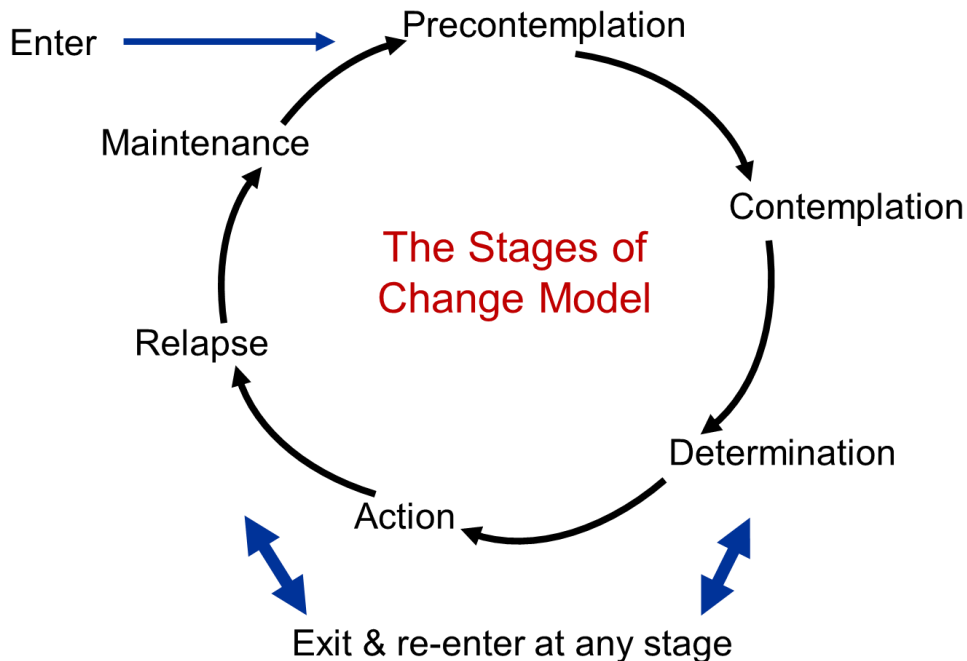
#### Educational Objectives

- Learning objective 1 (domain: Awareness)  
By the end of the session, 90% of the audience will acknowledge the effects stress and negative emotions have on the symptoms of fibromyalgia. This would be measured by three “yes/no” and multiple-choice end-of-session survey questions that would ask How stress affects the body, whether it intensifies fibromyalgia’s symptoms, and How to manage it.
- Learning objective 2 (domain: Knowledge)  
A short lecture will be given about ways to manage stress and negative emotions. In an end-of-session survey, 90% of the audience will be able to name one physical activity and one dietary habit, and list one replacement to salt that will help in reducing stress and negative emotions.
- Learning objective 3 (domain: Skill)  
In an end of the session survey, 90% of the audience will be able to answer two safety questions regarding the triangle, and downward dog yoga poses, and a third question to name one mental exercise that reduces stress and negative emotions
- Learning objective 4 (domain: Attitude)  
In an end-of-session survey, 80% of the audience will be able to state that they would, twice a week, incorporate in their lives one physical exercise, one mental exercise, and include one dietary habit that will reduce stress and negative emotions.

### 4-Developing the Intervention

## Theory Basis

This educational program will be guided by the Transtheoretical Model (TTM), also known as The Stages of Change Model. TTM focuses on the individual's decision making, and it is a model of intentional change.<sup>22</sup> Changing a behavior is not a quick decision, but rather it is a continuous work through a cyclical process. TTM has the following six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination. The goal of participating in this educational session is to move the audience from the contemplation stage to the determination stage. This would put the participants on the right track towards reducing stress and negative emotions.



As illustrated in the above diagram, Once these patients participate in this educational program, they enter the **contemplation stage** because this demonstrates that they are willing to give the program a try and see how it will affect their lives. The goal is as the patients engage in the sessions of the program, their awareness about the healthy behavior (managing stress and negative emotions) increases. Being in the contemplation stage further, the participants examine their behavior and start pondering how to fit the newly learned ideas from the educational session in their lives. Emotional arousal about the health behavior is happening and they start thinking about better health and feeling less body pain. They are improving their self-efficacy, so they are in the **determination stage**. They are determined to make change and act by following the exercises.

### Educational Strategies and their Rationale

Gain Attention (Awareness Objective): To gain awareness, a **flyer (medium 1)** will be distributed in the community titled "Effects of Stress and Negative Emotions on Fibromyalgia" to increase the audience's awareness about the role that stress and negative emotions have on fibromyalgia symptoms.

Present Stimulus Material (Knowledge Objective): During the session, a short **lecture (method 1)** will be given to educate the audience about ways to manage stress and negative emotions. The benefits of

Hatha yoga in reducing stress will be highlighted. Furthermore, diet tips regarding increasing vegetables intake, limiting salt consumption, and processed food will be provided.

Provide Guidance and Practice (Skill Objective): During the session, the participants will follow a certified yoga teacher through an **interactive demonstration (method 2)** performing different yoga poses. In Elgin, IL, 11.7% is considered poor. Usually, poor people do not have the means to participate in yoga classes. Therefore, having interactive demonstrations that is led by a certified yoga instructor would be the best way to learn the different yoga poses.

Based on the Dale's Cone of Experience, the interactive demonstration falls under the practice doing section. This is a sensory, real life and active experiences that have 75% retention rate due to the high activity on the part of the participants. This falls under the andragogical approach where participants are actively involved in the learning process

Elicit performance and Provide Feedback (Attitude Objective): A **Poster (medium 2)** will be provided showing modification and direction regarding three yoga poses that help reduce stress and negative emotions that were practiced during the session. Fibromyalgia entails body pains. Certain poses might be painful to perform. Therefore, this pamphlet would be a great reminder on how to practice these poses in a safe way.

Enhance Retention and Transfer: Participants will be encouraged to share what they learned with others outside the session. A **Handout (medium 3)** will be provided titled "Three New Things I Learned "This includes few tips on three key ideas discussed in the session to help with reducing stress and negative emotions. Sharing new learned information with others help participants retain the knowledge.

## 5-Preparation for Implementation

### Preparation for the Session

- Set up 30 Chairs
- Place 30 Yoga mats in the back of the room
- Place 15 yoga foam blocks next to mats
- Print out 30 posters and 30 handouts
- Set up a table for displaying posters and handouts
- Set up and test two microphones (one for presenter, and one for the yoga teacher)
- Connect PC to overhead projector for lecture slides

### Detailed Outline of the Session

- 7:00 – 7:10 P.M. Review of the flyer "Effects of Stress and Negative Emotions"
- 7:10 – 7:20 P.M. Short lecture
- 7:20 – 7:25 P.M. Set up yoga matts
- 7:25 – 8:15 P.M. Interactive yoga demonstrations
- 8:15 – 8:25 P.M. Administer the survey
- 8:25 – 8:30 P.M. Distribute posters and handouts

## Detailed Methods

### Lecture

A short lecture will be given to educate the audience about ways to manage stress and negative emotions. The benefits of Hatha yoga in reducing stress will be highlighted. Furthermore, diet tips regarding increasing vegetables intake, limiting salt and processed foods consumption will be provided. Refer to the appendix for the slides of this lecture.

### Interactive Demonstration

Participants will be led by a certified yoga teacher with session content as follows:

1. Hold one's breath and adjust inhalation and exhalation for about 5-10 minutes (diaphragmatic breathing).
2. Switch to abdominal breathing and chant "om." Gradually extend inhalation and exhalation times to facilitate mental and physical peace and then progress to the next stage of practicing asana poses.
3. Total asana practice time will be approximately 30 minutes. It starts from a sun salutation pose to warm-up, which is followed by different asanas including the downward facing dog, warrior pose, triangle pose, cow face pose, hero pose 1, twisted triangle pose, spinal twist pose, child's pose, locust pose and ending with the corpse pose.
4. Students will use 5-10 minutes for meditation training and adjusting breathing. Finally, the entire training concludes by chanting "om" three times to slow breathing rates down.

## 6- Evaluating Results

### Program Evaluation

#### Learning Objective 1 (Domain: Awareness)

By the end of the session, 90% of the audience will acknowledge the effects stress and negative emotions have on the symptoms of fibromyalgia. This would be measured by three "yes/no" and multiple-choice end-of-session survey questions that would ask how stress affects the body, whether it intensifies fibromyalgia's symptoms, and How to manage it. Refer to the flyer part questions of the survey in the appendix.

#### Learning Objective 2 (Domain: Knowledge)

A short lecture will be given about ways to manage stress and negative emotions. In an end-of-session survey, 90% of the audience will be able to name one physical activity and one dietary habit, and list one replacement to salt that will help in reducing stress and negative emotions. Refer to the lecture part questions of the survey in the appendix.

### Learning Objective 3 (Domain: Skill)

In an end of the session survey, 90% of the audience will be able to answer two safety questions regarding the triangle, and downward dog yoga poses, and a third question to name one mental exercise that reduces stress and negative emotions. Refer to the interactive demonstration part questions of the survey in the appendix.

### Learning Objective 4 (Domain: Attitude)

In an end-of-session survey, 80% of the audience will be able to state that they would, twice a week, incorporate in their lives one physical exercise, one mental exercise, and include one dietary habit that will reduce stress and negative emotions. Refer to the attitude objective part questions of the survey in the appendix.

### Develop an Evaluation Tool (Survey)

The survey has four sections, and each one consists of three questions. Following, are the four sections and what they entail. See the appendix for the survey.

- **Flier:** Asks how stress affects the body, whether it intensifies fibromyalgia's symptoms, and how to manage it.
- **Lecture:** Asks to name one physical activity and one dietary habit, and to list one replacement to salt that help in reducing stress and negative emotions.
- **Interactive Yoga Demonstration:** Asks safety questions regarding certain yoga poses and naming one mental exercise that help in reducing stress.
- **Attitude Objective:** Asks whether the audience will twice a week, incorporate in their lives one physical exercise, one mental exercise, and one dietary habit that will reduce stress and negative emotions.

## Appendix

### Flyer (Medium 1)

#### Effects of Stress and Negative Emotions on FM Patients

Stress is a key factor leading to fibromyalgia. Continued stress aggravates the symptoms. The glands and organs in the human body that release important chemicals to control the blood pressure and the heart rate are negatively impacted during stressful periods. Furthermore, the damage to the nervous system is long lasting.

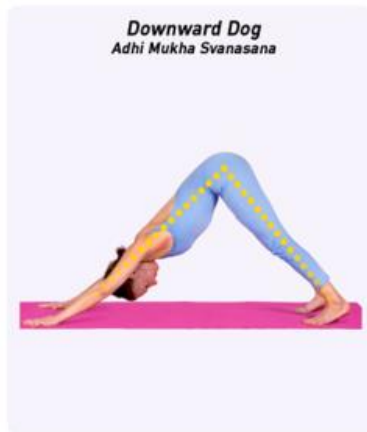
As a result, fibromyalgia patients suffer from an ever-worsening episodes of fatigue, and anxiety that last with them much longer than individuals that do not have this condition. To reduce the pain, fibromyalgia patients can greatly benefit from lowering their stress levels and negative emotions by using physical and psychological relaxation techniques.



<https://www.livinginwellbeing.org/chronic-fatigue-syndrome-fibromyalgia-and-the-stress-spiral/>

### Poster (Medium 2)

## Poster



<https://www.yogaoutlet.com/blogs/guides/how-to-do-downward-facing-dog-in-yoga>



<https://www.yogaoutlet.com/blogs/guides/how-to-do-triangle-pose-in-yoga>



<https://fitmw.com/10yoga-fat-loss/3/>



## 3 new things I learned

<b>1</b>   Set goals and priorities.	<b>2</b>   Get regular exercise.	<b>3</b>   Power up your diet
Decide what must get done now and what can wait. Learn to say "no" to new tasks if you start to feel like you're taking on too much. Be mindful of your accomplishments. <sup>1</sup>	Just 30 minutes per day of walking can help boost your mood and improve your health. <sup>1</sup>  <sup>1</sup> <a href="https://www.nimh.nih.gov/health/publications/stress/19-mh-8109-5-things-stress_142898.p">https://www.nimh.nih.gov/health/publications/stress/19-mh-8109-5-things-stress_142898.p</a>	Add green salad to your meal  Eat fresh fruit as a snack  Avoid processed food it is high in sodium content. <sup>2</sup>  <sup>2</sup> <a href="https://maware.net/power-up-your-diet/">https://maware.net/power-up-your-diet/</a>

Method 2: Lecture Slide 1



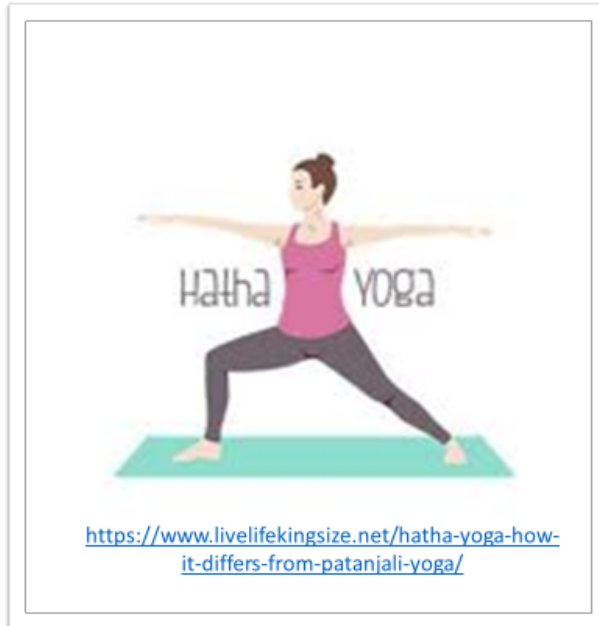
## Ways to Manage Stress

- Be observant
- Talk to your health care provider or a health professional
- Get regular exercise
- Try a relaxing activity
- Set goals and priorities
- Stay connected
- Consider a clinical trial

<https://www.nimh.nih.gov/health/publications/stress/index.shtml>



## Method 2: Lecture Slide 2



- Practicing yoga enables individuals to cope with and release stress <sup>1</sup>
- Yoga improves state of health and maintain mental and physical well-being <sup>2</sup>
- Hatha yoga uses asana practices to control the autonomous nervous system and muscle function and keep the body clean, flexible, and well lubricated <sup>3</sup>

<sup>1</sup> Chattha et al., 2008    <sup>2</sup> Shapiro et al., 2007

<sup>3</sup> Wu and Lin, 2008

## Method 2: Lecture Slide 3



### INCREASE FRUITS AND VEGETABLES

- Add a green salad to your meal.
- Eat a green salad as a meal! Great healthy idea for a light lunch.
- Eat fresh fruit as a snack.
- Fresh berries make a great dessert! Berries are low calorie, low sugar, high fiber and high in nutrients!

<https://fmaware.net/power-up-your-diet/>

## Limit Sugar and Refined Food

- Swap your bread. Avoid anything white, fluffy, or squishy, and choose whole grain, sprouted grain, or sourdough.
- Eat pasta al dente (also watch portion size, and if available choose whole grain pasta).
- Choose brown rice instead of white.
- Avoid packaged foods altogether. As much as possible, eat food in its most natural state (eat an orange, as opposed to drinking orange juice).
- Limit your serving of starch and increase vegetables. A great tip is to halve your portion of rice (or potato, or bread) and add a green salad.

<https://fmaware.net/power-up-your-diet/>



## Limiting Salt Consumption

- If you go out to eat and someone is preparing your food, just ask them, 'Hey, don't add any salt to my food, please'
- when cooking, try more herbs and spices to replace salt
- Feel free to say know to processed food
- How to reduce salt video:  
<https://youtu.be/Tbb-DDmncls>

<https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-minute-reduce-salt-to-improve-heart-health/>

## Survey

### Flyer Part:

1. Question: Stress affects (select all that apply)

- a. Hormone production
- b. Heart rate
- c. Blood pressure
- d. All the above

2. Question: Once started, stress and negative emotions last longer for fibromyalgia patients.

- a. True
- b. False

3. Question: Learning physical and psychological techniques are necessary to reduce stress.

- a. True
- b. False

### Lecture Part:

4. Question: List one physical activity that helps in reducing stress

5. Question: List one dietary habit that helps in reducing stress

6. Question: List a good replacement for salt:

### Interactive Yoga Demonstration Part:

7. Question: What to do if you feel unstable in the triangle pose?

- a. Place your back heel against a wall
- b. Brace your back against a wall
- c. Rest your bottom hand on a block
- d. a, or b, or c

8. Question: In the downward dog pose, to begin warming up and stretching the hips, bend one knee while keeping the other leg straight. Change sides and repeat five times

- a. True

b. False

9.Question: Name one mental technique that helps in reducing stress and is readily available to you

Attitude Objective Part

10.Question: I would twice a week incorporate in my daily life one physical exercise that will reduce stress and negative activity.

- a. Yes
- b. No

11.Question I would twice a week incorporate in my daily life one mental exercise that will reduce stress and negative activity.

- a. Yes
- b. No

12.Question I would twice a week incorporate in my daily life one dietary habit that will reduce stress and negative activity.

- a. Yes
- b. No

Survey Answer Key

Question #	Answer
1	D
2	False
3	True
4	Regular exercise such as yoga and walking
5	Any of the listed dietary habits below: - Consuming fruit as a desert or snack - Consuming a salad next to a meal - Consuming green salad as the main meal - Limiting sugar and refined foods - Limiting sodium
6	Herbs and spices
7	D
8	True
9	Any of the listed answers below: -Focus on the breadth - Celebrate accomplishments - Be observant (stay present)

10	A or B
11	A or B
12	A or B

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