Psychological treatment efficacy in primary dysmenorrhea

Zahra Emarloo\textsuperscript{a}, Mohsen Doustkam\textsuperscript{b}

\textsuperscript{a} Master Student of psychology, Islamic Azad University, Neyshabour, Iran
\textsuperscript{b} Ph.d of psychology, Islamic Azad University, Neyshabour, Iran

Abstract

Primary dysmenorrhea is one of the most common psychosomatic disorders in women that causes reduce performance and absenteeism from work and school.

Primary dysmenorrhea or painful menses in the absence of specific pelvic disease is one of the most common complaints in women's medicine that reduce performance.

More than 50 percent of women suffer from this condition, so that ten percent of them have severe dysmenorrhea and their lives disrupted each month from 1 to 3 days.

This disorder leads to many problems such as lack of girls in the classroom and limits on their activities.

According to the research dysmenorrhea alone is a major cause of school absences, loss school success and lost work.

Various drugs can be limited dysmenorrhea pain, but these drugs despite their beneficial effect on menstrual pain, are associated with many side effects.

In this way, perhaps no other type of pain as dysmenorrhea is not suitable for nonpharmacologic treatments.

Keywords: dysmenorrhea, pain, psychological treatments.

Introduction:

Concerted efforts to treat the pain have close relationship with pain how to define and its evaluate. In medicine since ancient times on the assumption that the pain has basic physical and with knowledge that could benefit from surgery or medication, the pain eliminated or created interruptions in its functioning; was always the focus of the pain source.

was reported by the patient. Thereby determining the physical origin of the pain were assessed. If no pain often causes psychological and physical origin was obtained through so-called "psychogenic pain" was discussed.

Chronic pain is much more than a physical mark. The continuation of the pain caused widespread problems and suffering such as demoralized emotional disorders, worry constantly with pain, activity limitation personal, social and professional, increased use of medications, frequent visits to healthcare
And the spread of disease to other parts of the life affects (Asghari Moghaddam, Najarian, Mohammadi, Dehghani).

**Theoretical basis of research:**

Pain is a cause of living avoid dangerous and unpleasant stimulus, and by the way he plays an important role in maintaining life. Although pain is essential for the survival, it often loses its warning and adap role and have delivered the diverse problems. Uncontrollable and long-term pain possible created neuronal plasticity central allergy through the changes in central and peripheral nervous systems and therefore is a disease.

The mood of individual (fear, depression, and anger) opens exacerbate pain or reduce its severity. As well as the social context in which one lives, has affected the his pain (Asghari Moghaddam).

These proposals are now in western countries that in the case of each patient, the major symptom of pain as the fifth vital sign, along with four other critical (blood pressure, heart rate, temperature, and respiration) must be measured and recorded. In this regard, in America the years 2001 to 2010 that have called about the decades of pain and Research (Asghari Moghaddam).

People in the face of pain, employ a variety of coping strategies; adaptive and non-adaptive some.

Active coping strategies (such as trying to duty despite the pain, ignoring the pain, the use of muscle relaxation) is the compliance result. The use of passive coping strategies (dependency or rely on others for help for pain control and restrict the activities) also associated depression, pain and severe physical disability (2001 Degood & Tait).

Pain Coping Strategies may include cognitive strategies such as soliloquy, catastrophic, distraction from pain, information about pain, problem solving and as well as behavioral strategies, such as increases or decreases in specific activities such as relax, Physical activity, use a hot water bottle or ice, (2004 Nikolas & Asghari).

In general, three types of approach can be taken to deal with pain: Behavioral, cognitive, and biological. Behavioral approach with medication, surgery. But cognitive and behavioral approaches are non-invasive methods. Behavioral approach determines the pain and it-related behaviors learned, according conditioning.

Cognitive approaches in the treatment of chronic pain emphasized on the interpretation of a situation, perceived control, how they process information, and understanding of chronic pain and mental schemas (McDowell & Fernandez, 1995). Behavioural interventions for primary dysmenorrhea classified under four categories are: Hypnotherapy, Lamaze exercises, biofeedback training, and desensitization-based treatments.

Over recent decades there have been two processes of behavioral therapy include: Increase its control over the treatment and behavioral methods to be used of disorders such as phobias (Such as systematic desensitization). But research now have been tends to educate coping strategies to manage pain (Turk & Genest, 1979).

The psychosomatic pain related to women diseases is particular importance. Because most of these complaints are related to biorhythm cycles. This type of pain will vary from head to pelvis. Even the etiology of pelvic pain is also of great diversity. First, will discuss an explanation types of pain.
Acute pain, severe pain determined with sudden onset, rapidly rising short period. Cycle pain, pain that have a strong correlation with biological cycles. Dysmenorrhea or painful menstruation, is the most common cycle pain and divided into two types: primary and secondary. Chronic pain is pain that lasts more than six months duration. Acute pain is often self-reflexive responses such as nausea, vomiting and sweating.

While these autonomous responses in chronic pelvic pain occur. Acute pain physiological pathology often include such as inflammation, ischemia (temporary anemia), chemical irritation, infection and so on. But the etiology of chronic pelvic pain is often vague. In addition, chronic pain is associated quite different physiological responses, mood and behavior from acute pain responses (Berek, 2002). Dysmenorrhea is one of the most common gynecological diseases, with the greatest focus on the pelvis. Nearly 50 percent of women are suffering.

Primary dysmenorrhea is called menstrual pain without pelvic pathology, while secondary dysmenorrhea is associated with the physiological pathology.

Primary dysmenorrhea usually emerges within 1 to 2 years of menarche. When the ovulation cycles are fixed.

This disorder usually affects younger girls, but may continue to 40s. Secondary dysmenorrhea usually occurs years after menarche.

The cause of the primary dysmenorrhea, increased production of prostaglandins inner membrane of the uterus. Prostaglandins, hormone-like substances are found in many tissues of the body, especially in the seminal fluid. Prostaglandins are produced in response to trauma and affect on blood pressure, metabolism and smooth muscles activity (Berek, 2002).

Primary dysmenorrhea pain usually starts several hours before or after menstruation and may continue 48 to 72 hours. Pain similar to labor pain associated with muscle contractions that comes with back pain. Pain extended in the lower back, hips.

The symptoms of nausea, vomiting, diarrhea and fainting episodes rarely occur. Nature of dysmenorrhea is, is cramps and colic.

Dysmenorrhea improves abdominal massage and physical exercise. As well as stress and diet affect on primary dysmenorrhea.

In general, medical tests and ultrasound showed pelvic organs are normal in primary dysmenorrhea. Primary dysmenorrhea diagnosed early due to the nature of its cycle. Also there will not be a special pelvic pathology.

The differential diagnosis of secondary dysmenorrhea and primary dysmenorrhea is irreversible pelvic pain.

Prostaglandin synthesis inhibitors was 80 percent effective in the treatment of primary dysmenorrheal. Inhibitors should be disposable every 6 to 8 hours before or at the onset of pain.

It is also necessary for a treatment period of 4 to 6 months.

Even a change in dosage and type of medication is the cause of treatment failure.

Side effects include nausea, digestive disorders, diarrhea and fatigue. Pain management, especially acupuncture or electric nerve stimulation of the skin (TENS) might also be useful.

In recent years, the research focus has moved towards non-drug treatments. Many studies have been done on the treatment and its effectiveness (Berek, 2002).

Another method of treatment of primary dysmenorrhea is medication. If you see an increase in the volume of research in recent years, are associated with this approach,
For example, lavender impact on fatigue, nausea and vomiting associated with primary dysmenorrhea (2011 Jenabi, Asltoghiri, Hajiloomohajeran, Torkamani,) and the effect of Mefenamic Acid and Chamomile capsules on primary dysmenorrhea (Modarres, Mir Mohammad Ali, Ashire and M.).

Cognitive-Behavioral Pain Management is a set of clinical interventions such as raising awareness about the physiology of pain, the role of cognitive factors in the pain, to identify dysfunctional thoughts, cognitive restructuring, relaxation training, skills training coping with pain and activities planning.

Cognitive-behavioral therapy approach is based on the assumption that patient With the belief that many of the problems is uncontrollable, It is entered the treatment stage. The goals of CBT is that Initially expected to bring in patients who Can effectively control their own problems and then it is necessary to teach them skills to help them by Effectively respond to current problems and new problems that arise after the end of treatment. All forms of cognitive-behavioral therapy consists of four basic elements: education, skills, training and cognitive-behavioral generalization and maintenance. On the other hand, cognitive-behavioral treatment in skills training of pain, It is assumed that according to cognitive and affective factors influencing the pain behavior is resulting in pain relief.

hypothesis is compatible the gate control theory of pain which states that afferent stimuli of pain receptors and triggers pain perception interaction taking off, accidents, emotional responses and individual cognitions, (Asghari Moghaddam, Naja, Hamadi, peasants).

Efficiency of biofeedback therapy for the treatment of primary dysmenorrhea confirmed. Although most of them were not controlled. More studies were given impressive results for biofeedback treatment was based on the case study. As Sdlask research and Hkzy (1977), with three samples. Similarly, although other research has confirmed the effectiveness of biofeedback. For example decreased 64 percent pain reported (1987 Dietvorst, Osborne.). In this study, which was conducted as a case study, The patient was a 18 year old girl with a history of primary dysmenorrhea that after two months was treated with biofeedback body temperature 8 meeting, survey the baseline. The patient reported a significant decrease in pain and its symptoms. The most common response to an acute injury painful is tightening of the muscles. Tightening to limit the movement of the body given protection and provide the opportunity to improve. However, when chronic pain this is not an appropriate response and adaptive And does not lead to improvement.

High muscle tension can also be happen in response to anger, anxiety, frustration and stress are all common emotions for those with chronic pain referred. As well as muscle tension can lead to fatigue and impatience. Regardless of origin, chronic pain can boost muscle tension high. Relaxation is a skill that people can take control many functions of the body to use it. Studies have shown that relaxation can have many benefits such as increased energy, decreased muscle contraction and fatigue, improve sleep, lower blood pressure and reduce associated pain (Alibeygy and Mohammadi).

It also depression, is a common complication of chronic pain. The prevalence of major depression in patients with chronic pain in the general population is higher than average (20% vs. 8%). For example, the results of various studies suggest a link between depression and chronic low back pain, but can not say that this is a causal relationship (2002 Buer, Linton,). Although the overall results indicate correlation between pain and depression. Newton-John, Spence, Schotte, 1994), began compared the effectiveness of CBT and EMG on 44 patients with chronic low back pain. Both treatments were carried out in 8 sessions. The results showed significant improvements in pain.
level of disability, adaptive beliefs about pain and depression in both groups. The results did not for the third group, the control group. In this study, no significant differences between CBT and EMG in any of the variables was obtained.

(Flor, Birbaumer, 1993), also showed that EMG effectiveness is more significantly of CBT or medication therapy. The 6-month and 2-year follow-up results is on a sample group of patients with chronic low back pain.

Flora and Brbvmr did a research include training in pain control valve model, the interaction of pain and stress, relaxation training, distraction exercises and problem-solving skills. While other interventions CBT, as well as intervention (Turner, Jensen, 1993), including scoping and cognitive restructuring techniques to depressed conditions were associated with pain. Flora and Brbvmr program was more effective (Laurence Bradley, 1993).

In a study, (Quillen, Denney, 1982), have the effects on pain management treatment of patients with primary dysmenorrhea. It was given to the patients in four two-hour sessions. During the meetings was to remind patients that the main purpose of increasing their skills in the management of pain symptoms. Each session was devoted to progressive relaxation training. The subjects showed a significant decrease in experienced pain, discomfort, pain interference with other tasks and lose time compared to pre-test and control group. These results persisted 18 months after treatment.

Hkzy (1980), used the relaxation training and temperature biofeedback in his research. One group of subjects received individual training, while the second group received this training as a group. The third group received training with body temperature biofeedback. The three groups were compared with a control group. Results showed that training with biofeedback effect was better than the other two types.

Follow-up revealed that subjects who did relaxation exercises daily showed steady improvement. On the other hand, Danny and Gerard (1981) the effectiveness of biofeedback as a treatment for primary dysmenorrhea questioned.

In another study, 9 women with primary dysmenorrhea treated with EMG and heat biofeedback that was also associated with relaxation practice.

EMG levels were significantly correlated with reduction in symptoms of dysmenorrhea. Although not found a significant correlation between EMG and body temperature. In fact, a consistent pattern was not found in measurements of body temperature. An important and significant findings of this study, was the efficacy of long-term treatment process. A period of 6 months were employed and a significant reduction in symptoms was reported in two months after biofeedback treatment. Finally, mentioned the importance of starting biofeedback treatment before the onset of menstruation symptoms (Balick, Elfner, May, Moore, 1982).

In another study, 15 women with severe primary dysmenorrhea were treated with EMG biofeedback, relaxation therapy no feedback or no treatment.

Patients who received EMG biofeedback with relaxation in the ability to earn different levels of EMG activity had before menstruation.

On the first day of menarche, patients who were treated with EMG biofeedback were able to maintain reduced activity.

While patients who received relaxation had reported improvement in EMG level activity. Results indicated that the symptoms of dysmenorrhea for biofeedback group improved during training, but for relaxation and the control group is not reached (1982 Bennink, Hulst, Benthem. (Hall, Evans, Breckenridge, Gates, 1983), EMG 12-week sessions with 8 young women with primary dysmenorrhea were. Patients had a significant reduction in the severity of dysmenorrhea, menstrual symptom questionnaire. (1981 Hart, Mathisen, Prater,).
While in another study to compare the effects of GSR and EMG on pain associated with primary dysmenorrhea’s and obtained a significant reduction in pain symptoms during follow-up.

Numerous studies have shown co depression and pain. For example (2004 Currie, Wang,), showed that the prevalence of major depression in patients with chronic pain than the average general population is considerably higher (20 % vs. less than 8%).

Pain, depression and insomnia commonly co occur among patients with pain disorders. Because of this co they can be placed in a cluster.

A group of signs that the combined effects exist between them and also have the same biological mechanisms. Ten to 15 percent of the adult population reported chronic problems in initiating or maintaining sleep (1999 Ancoli, Roth,). Most of the complaints occur in the field of medical and psychiatric problems (Ohayon, 2001). (2007 O’brien, Indusekhar, Usman,).

Cognitive behavior therapy is also effective in premenstrual syndrome and has claimed that the effects of this therapy remain constant long time.

In Iran, have been several studies, about associated the prevalence of pain and factors with it. In epidemiologic study, primary dysmenorrhea and its relationship with food and exercise habits were studied in high school girls.

Psychosomatic pain. The study was conducted on 200 students with cluster sampling method. Data collection was performed using a Visual Analogue Scale. Findings showed that the prevalence of dysmenorrhea is 91%.

Also no significant differences were seen in pain scores in students -athletes and non-athletes (accompanied, Alhani, Anousheh and dignity Seyedin).

Shabani Nshtayy and Alizadeh, in the study examines the pattern of primary dysmenorrhea based on 108 students living in dormitories at Tabriz.

The results showed that 74% of the subjects, moderate to severe dysmenorrhea (equal score and higher than 5).

More than 38% stated that dysmenorrhea prevent them from doing everyday activities often turn to pain killers to relieve the pain. Most drug related ibuprofen (25%).

Interestingly, in this study was that people who have a mother or sister had menstrual pain and menstrual pain of those who often or always kept them out of work, had more dysmenorrheal. Although (2009, Dorn) claim that the cause of the problem may be related to behaviors learned from the mother.

In another study, 80 students were enrolled with primary dysmenorrhea.

Then they were divided into two groups. In the experimental group was during the eight 2-hour sessions of group counseling program in school.

Classes included training Understanding the female reproductive system physiology and anatomy, menstrual and primary dysmenorrhea associated with problems in plain language, recognition of primary dysmenorrhea in examples language and discussion. Also discuss was performed the exercise and eating habits and their effect on pain. The results showed a significant decrease in the severity of dysmenorrhea in the test group (Kermanshah, Hossein Zadeh and Alhani).

In a study on female students of city of Sirjan, Prevalence of primary dysmenorrhea is estimated about 79/9 percent that one of the major causes of absenteeism from school and related activities.

As well as about 42/6 percent of them were taking nonsteroidal anti-inflammatory drug. The results of this study, in addition to the high prevalence of dysmenorrhea among young girls showed that most students do not have to deal with it (Jalili, Safizadeh, Shams M.,).

Kamjoo study, on the incidence and severity of primary and dysmenorrhea associated factors in Bandar Abbas dormitories student shows girls who their sister or mother were suffering from menstrual pain and
regarded menstrual as bothersome illness were more severity of dysmenorrhea. So negative mindset toward menstruation and dysmenorrhea family history associated with menstrual pain (0.05 > P).

Rasoulzadeh, Zebardast, Zulfikar and Mehran, studied the effect of progressive muscle relaxation on primary dysmenorrhea. Results show that this method in reducing dysmenorrhea in the sample studied. Using group and individual psychotherapy for people is harmful with pain medication or suffer side effects as well as people not wanting to take medicine, can be fruitful.

Conclusion:

Take a look at research in the field of psychosomatic disorders and pain, especially primary dysmenorrhea, shows that the use of psychological treatments is without the side effects of drug treatments such as drug intoxication, tolerance, dependence and other pharmacological parameters. Due to the fact that many patients unwilling or unable to tolerate the side effects of chemical drugs, this is one of the advantages of psychotherapy. As well as psychotherapy methods are more sustainable of medical methods.

References:


Jalili, Safizadeh and Shams Poor (1383 ). Prevalence of primary dysmenorrhea in college students in Sirjan and how to deal with it. Quarterly monitoring, 1, 61-67.


John bozorgi, M.. Effects of Progressive Relaxation Training on anxiety and skills EMG biofeedback responses and peripheral temperature. Research in Medicine, 29, 4, 325-330.


