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Mindfulness Based Stress Reduction (MBSR) in Management of Chronic Pain Conditions

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Abstract: **Pain and psychological characteristics form a mutual bond. It isn't just a matter of chronic pain which has harmful effects on the intrapersonal and interpersonal aspects of a patient's life. At the same time various psychological factors play a major role in the way each patient separately experiences pain.**
Mindfulness based stress reduction is a type of intervention which seems to be a very promising addition to the treatment of chronic pain and the subsequent improvement of physical function and psychological wellness. The core of MBSR consists of intensive training on mindfulness meditation and its applications in everyday life and confrontation of stress illness and pain. The practice of meditation is the practice of focusing attention towards order each and every second in a way that is neither judgmental nor reactionary.

Keywords: **mindfulness treatment, meditation, chronic pain.**

1. INTRODUCTION

It has become clear that pain is able to cause many difficulties to a patient suffering from it, his whole family and for the entire healthcare system as well (Melzack 1990). Despite its serious effects, chronic pain isn't a simple , specific nor defined medical state. According to various research which have highlighted the social and psychological aspects of pain, the importance of psychotherapy in managing it is on the rise acquiring an important place in the proposed medical protocols (Turk 1998).The relationship between pain and psychological characteristics is mutual while chronic pain has harmful effects on intrapersonal and interpersonal aspects of the individual in a way that he experiences pain as a part of a pathology from which he suffers from.

Experiencing a pain condition, which may be chronic, is affecting on every aspect of the individual's social adaptability. Their physical limitations which can be experienced, may lead to a possible job loss and increased psychological pressure, emotional problems and stressful events, social adjustment problems and medical adhesion issues. So in order to successfully adapt to a chronic condition, both the patient and its family need to adopt a permanent way of behavior, which will be based on a social and emotional change (Turk, Wilson & Cahana 2011)

The psychological management of pain includes a series of therapeutic techniques and methods. The classification of the various psychotherapeutic techniques and approaches from Keittler& Keittler (2007) on pain management is a well-founded collective effort, which is also focusing on the differences between these therapies. As a result, treatments focused on the sensory part mainly to achieve a change in the perception of pain, through the modification of emotional and cognitive response. Treatments that focus on the direct impact which relieves pain, seem to have little effect on it's improvement. Therapies focusing on the cognitive component of pain, apply changes in the patient's attitude towards it, while those that focus on behavioral component are designed to use learning processes in order to manage it (Kreitler& Kreitler 2007)

In a contemporary review Csazar, Bagdi, Peter stoll and Szoke (2014), have collected these psychotherapeutic approaches which have been used to manage situations of pain Their efficiency has been studied through efficient research data. Psychological approaches maintain a long history of dealing with chronic pain, meanwhile cognitive behavioral psychotherapy dominates the field for the last three decades. The first complete description of such therapies has begun in the early 1980's (Turk, Meichenbaum, Genst, 1983). Interventions of chronic pain, which are based on cognitive-behavioral therapy, are considered to be the most efficient and clinically accurate approaches up to date, especially when they were compared to commonly used medical approaches (Turk& Burwinkle, 2005, Gatchel & Okifuji, 2006).Even though CBT has been successful in dealing with chronic pain, it's effectiveness is limited.

The concept of mindfulness, has its roots in the Buddhist philosophy. The formation of this concept though, is also much influenced by Greek Philosophy, Existentialism, Phenomenology and Humanism. It's central aspect refers to the human experience, while at the same time give emphasis on conscious activities of attention and awareness(Brown, Ryan & Creswell, 2007). Awareness refers to the deliberate recording of stimuli, including the five senses ,the kinesthetic senses and mental activities while having direct connections with reality(Bryan, Ryan &Creswell, 2007). When a stimulus is strong enough, the mechanism of attention is involved and there is a so-called shift towards the object. The characteristics of consciousness are crucial to the quality of experience and action.

Mindfulness, as a protective factor, is characterized by pre-conceptual awareness, control of attention, acceptance of the experience without criticism and focus on the present direction (Brown Ryan & Creswell 2007). Mechanisms such as control of attention, body awareness, emotional regulation and changes on personal perspective are all elements that are consistent and linked to mindfulness. Furthermore, the promotion of such elements may have a significant impact on a person's tolerance towards negative feelings and stress factors (Hoizer, Lazar, Schuman-olivier, Vago &Ott, 2011). High mindfulness levels can help dealing with anxiety and it's symptoms (Brown et al., 2007).The significance of these attributes focuses on the fact that they are lined to physical and psychological well-being. The promotion of mindfulness characteristics can affect an individual's sensitivity towards the symptoms of a disease, but also in its ability to manage such symptoms and returning to more operational levels. Some of the effects of promoting mindfulness characteristics is an increased tolerability of pain, reduction of stress reaction, anxiety, depression, and better response towards stressful events (Ludwig &Kabat - Zinn 2008). At the same time it may lead to an increased motivation for lifestyle changes related to nutrition, physical activity, smoking cessation and social conciliation (Ludwig and Kabat-Zinn 2008).

Despite the conventional health care, almost half of chronic pain patients reported that pain experience wasn't constantly under control (NCCAM 1999). The limitations of drug therapy for chronic pain reflects the complexity of patho-physiology and the strong contribution of psychological factors (Wolsko, Fisenberg, Daris & Philllips, 2004).

Medical status of 'mind-body” is defined by a series of treatments designed to enhance the mind's capacity to contribute to the improvement of physical functioning and depression symptoms (Astin, 2004). Despite the general assumption that the mind-body therapies can be effectively incorporated in the integrated management of chronic pain, only 20% of chronic pain patients report use of such interventions (Teixeira, 2008). Treatment based on mindfulness for stress reduction (MBSR) is a type of intervention that appears to be a promising addition to the treatment of chronic pain and the consequent improvement in physical function and psychological well-being (Grossman et al., 2004). The core of MBSR, refers to the intensive training in mindfulness mediation and its applications in everyday life, dealing with stress, illness and pain (Kabat-Zinn, 2003). The practice of meditation is the practice of focusing the attention on purpose, in a way that is not critical and reactionary (Kabat- Zinn&Hanh, 2009). The MBSR basis is mindfulness, introduced by Jon Kabat Zinn in 1979, defines as “a time of non-critical awareness”. Self-awareness increases through meditation which leads to a greater unity between mind and body. A program based on mindfulness can be significantly helpful for patients who suffer from chronic illness, anxiety, depression chronic pain and other health issues (Bohlmeijer, Prenger, Taal & Cuijpers, 2010).

Mindfulness is characterized by constant awareness. It includes the immediate awareness of bodily sensations, perceptions, emotional states, thoughts and images. It implies the constant focus of attention towards mental content, without thinking ,comparing with various ways in order to evaluate ongoing mental phenomena that arise during the practice of therapy. Thus, consciousness can be regarded as a form of naturalistic observation on which the observation objects are perceptually mental phenomena which usually occur during a wakefulness of consciousness (Grosmman ,

Nieamann, Schmidt &Walach, 2004).

Understanding how meditation can be useful towards pain management is still in early stages of investigation, although its ancient origin in various traditions, shows a great benefit throughout years. However there are some important components that need to be taken into consideration

Relaxation: Although meditation isn't just a technique to relax, it can be a common and useful side effect. Relaxation is really important towards the treatment of pain because not only pain is stressful, but this stress can aggravate and maintain pain (interrelated).The process of relaxation helps us manage neurovascular reactions, which can become more severe and frequent if the pain persists for a long time .Meanwhile it strengthens the body's natural pain modifiers such as endorphins and endocannabinoids (Cusens et al., 2010).

Admission: A psychological expression of the persistence of a pain condition which can also be a patient's feeling of a continuous management without exempt. This can cause frustration, anxiety or depression during times when pain cannot be controlled. Mindfulness helps us towards accepting the best way of all stimuli, including pain, in order to improve the individual's receptivity (Cusens et al., 2010).

Mental flexibility: Negative thoughts create negative emotions, which sensitize the nervous system and are able to increase the sense of pain. Negative thinking about pain or pain catastrophizing may be one of the strongest predictors of variation of short term pain in chronic pain. The practicing of meditation based on malfunction can reduce such negative thoughts. This happens because the stimuli are basically perceived as mental events thus reducing the impact of the adverse reactions of pain, anxiety and depression (Cusens et a l., 2010).

In a number of outcome studies of Kabat-Zinn and his associates, participants who face a chronic pain situation and took part in an MBSR intervention program reported significant changes in various levels which affect pain and more specifically towards perception of tension felt in expressing various medical symptoms and their management ability towards psychological symptoms such as anxiety and bad mood as well as a reduction of inhibition in their various activities (Kabat-Zinn et al., 1982,1985,1987)

A descriptive study of Randolph, Caldera, Tacone and Break (1999) tested the application and effectiveness of MSR in a group of patients with 10 diverse pain syndromes. The findings showed significant changes in patients perception of pain and their psychological symptoms combined with conventional treatment that were given to them. Researchers have also studied the application of MBSR in groups of patients diagnosed with chronic pain disease. Findings from studies of patients with fibromyalgia, include improvements in pain perception, stressful events, depressive symptoms, body complaints, a sense of cohesion, quality of sleep and daily life and fatigue (Kaplan et al., 1993 ,Sephton et al., 2007, Weissbecker et al., 2002, Grossman et al 2007). A randomized study of patients with chronic musculoskeletal pain showed that MBSR had no significant effects on the sense of pain intensity compared with other types of treatments e.g. kneading. However, MBSR seemed to play a part in the shaping of a better psychological wellness (Plews-ogan et al., 2005).

2. CONCLUSION

Given these mixed empirical findings, those conditions should be taken into account, especially in relation to the specific conditions of pain, so that we can discuss the effectiveness of the implementation of MBSR in managing such situations. An important methological consideration concerns whether or not the MBSR is being taught to medically heterogeneous of homogeneous patient population. The MBSR programs generally serve mixed groups of patients who may not have a formal term of chronic pain condition or ever be afflicted with another medical condition.

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