Chronic Pain Management in the Unifying Experiential Psychotherapy (U.E.P.) Framework: Principles and a Working Protocol

Claudiu C. Papasteri*[iv], Ioana M. Neagoe*

*Faculty of Psychology and Educational Sciences, Psychology Department, University of Bucharest, Bucharest, Romania

Abstract

Introduction: Pain affects hundreds of millions of people worldwide and is a primary complaint resulting in physician visits. The roles of cognitive, emotional, social and behavioral factors in the development and treatment of chronic pain have been acknowledged long ago. Psychological treatments to chronic pain have been shown to be successful, with effect sizes generally in the medium to high range and, more recently neuroscientific evidence has confirmed these findings by providing basic knowledge on the neural correlates of psychological modulation of pain experience.

Objectives: As medical interventions frequently cannot resolve chronic pain completely, the need for psychological management approaches to chronic pain is increasing. Yet, two shortcomings remain pervasive: (1) many professionals and patients remain reluctant in using them, (2) these approaches remain with no good reason confined to only a few psychotherapy schools. The following article aims to provide a conceptual background on the bases of experiential pain management.

Methods: Techniques, principles and guidelines portraying to the U.E.P. philosophy that stem out from the conceptual background will be presented in the second part of the article in which an experiential psychotherapy protocol for pain management will be outlined.

Results: The techniques discussed here have proven to be effective in clinical settings on a variety of pain conditions.

Conclusions: Due to the increasing involvement of psychologists and psychotherapists in the assessment and treatment of disease-related pain, such as pain secondary to cancer, arthritis or fibromyalgia, applicative methodologies and guidelines need to be provided in order to aid practitioners in their endeavor. Unfortunately, highly personalized (patient centered) approaches such as the experiential ones are harder to disseminate and their efficacy is difficult to quantify in naturalistic settings.

Keywords: pain, management, relief, multidisciplinary treatment, psychological intervention

[iv] Corresponding author: Claudiu C. Papasteri, Faculty of Psychology and Educational Sciences, University of Bucharest, Panduri 90, District 5, Bucharest, 050663, Romania. E-mail: claudiu.papasteri@gmail.com

I. Introduction

Pain affects hundreds of millions of people worldwide and is a primary complaint resulting in physician visits and health care resource utilization (Gureje et al., 1998), in more recent review from multiple countries and the World Health Organization, the weighted mean prevalence of chronic pain being 31% in men, 40% in women, 25% in children up to 18 years old, and 50% in the elderly over 65 years old (Ospina & Harstall, 2002).

Pain is an essential biological function that signals disturbance or damage in the body, prevents further harm through overuse of the afflicted area, and promotes physiological homeostasis (Craig, 2003; Sturgeon, 2014). However, pain may become chronic through abnormal healing, additional bodily damage, or failed medical intervention and in this persistent state it may no longer signal damage to the body, but instead be detrimental to the physical and psychological well-being of the sufferer. Sources of pain are often multiple, with the combination of chronic neuropathic, inflammatory, chemical, mechanical, ischemic, or acute pain. Unfortunately, medical or pharmacological intervention frequently cannot resolve chronic pain, resulting in increased need for management approaches to pain, as is the approach to other chronic medical or psychiatric conditions (Sturgeon, 2014).

Flor & Diers (2007) have described the three most important limitations of pharmacotherapy for chronic pain. "First, the drug does not always target the region in the central nervous system where the main effect should be but will occupy all receptors, thus leading to unwanted general and side effects. Second, analgesic medication is as much prone to tolerance and loss of efficacy as other drugs, and especially opioids can themselves induce hyperalgesia over time (Angst & Clark, 2006). Third, long-term analgesic medication can be associated with learning processes that enhance the amount of medication consumed and can drive patients into dependence and lead to cognitive and other neuropsychological deficits (Buntin-Mushock et al., 2005)". In addition, often in chronic states of pain the initial cause of the pain may no longer be relevant and in many cases factors related to central nervous system functioning may be causal for the persistent painful experience. The authors (Flor & Diers, 2007) conclude that psychological as well as combined psychological and pharmacological approaches should be utilized in order to address these issues and overcome some of the limitations of pharmacotherapy. Moreover, people whose lives are disrupted by the occurrence and persistence of pain react as they would to any other threat, with fear and active attempts to escape or avoid it, chronic escape and avoidance further leading to severe disability and depression (Sturgeon, 2014). Thus, psychotherapy or psychosocial interventions representing the main actual noninvasive neuromodulatory treatments for chronic pain need to take their rightful place in the health care system.

Psychological research focused on pain perception, pain assessment and psychological correlates of persistent pain has a long history, but the full utility of psychological approaches to pain management, mainly related to ongoing diseases, is sometimes viewed as a recent discovery, as being limited to only psychological suffering or even as quackery. This major shortcoming to effective psychosocial patient care services is certainly not warranted by scanty evidence by all means. In general, psychological treatments to chronic pain have been shown to be successful, with effect sizes in the medium to high range (Williams et al., 2012).

Meta-analyses and literature reviews of randomized clinical trials support psychotherapies such as cognitive behavioral therapy (Fernandez & Turk, 1989; Morley et al., 1999; Hoffman et al., 2007; Glombiewski et al., 2010), hypnotherapy (Montgomery et al., 2000; Elkins et al., 2007; Accardi & Milling, 2009; Stoelb et al., 2009), mindfulness meditation based therapies (Reiner et al., 2013), acceptance based therapies (Veehof et al., 2011) and others as being efficient methods of pain relief and pain management.

Since the '90s, neuroimaging studies have provided basic knowledge of how the brain responds to pain and how treatments influence this response (Peyron et al., 2000; Derbyshire, 2000) and this is also becoming true in the case of psychological interventions for pain management. Psychological modulation of pain in conjunction with its underlying neurophysiological correlates were scientifically explored and tested in regards to hypnosis (Meier et al., 1993; Kropotov et al., 1997; Rainville et al., 1997; Crawford et al., 1998; Rainville et al., 1999; Wik et al., 1999; De Pascalis et al., 1999; Faymonville et al., 2000; De Pascalis et al., 2001; Faymonville et al., 2003; Vanhaudenhuyse et al., 2009; Jensen et al., 2014) and cognitive behavioral therapy (Salomons et al., 2004; Salomons et al., 2007; Jensen et al., 2012) and subsequent psychological mechanisms used as therapeutic methods like attention/distraction (Peyron et al., 1999; Petrovic et al., 2000; Bantick et al., 2002; Buffington et al., 2005), relaxation (Naglatzki et al., 2012), dissociation (Rainville et al., 1997; Rainville et al., 1999), imagery (deCharms et al., 2005), nonhypnotic suggestion for pain relief (Derbyshire et

al., 2009; also adding here the complementary hypnosis without use of pain relief suggestions as evidenced by Vanhaudenhuyse et al., 2009), expectancy/placebo effect (Wager et al., 2004; Colloca & Benedetti, 2005; Pariente et al., 2005; Colloca et al., 2008; Eippert et al., 2009) and meditation (Orme-Johnson et al., 2006; Zeidan et al., 2011; Gard et al., 2012; Zeidan et al., 2012). It is now apparent from a variety of studies that psychological interventions modulate both self-reports of painful experiences and physiological responses, and act on both functional and structural aspects of brain function (for review see Flor, 2014).

So why are psychosocial and psychotherapeutic interventions so rarely provided in the context of chronic pain? The main issue stems from uninformed skepticism fuel by the still pervasive views of traditional biomedical model that does not perceive accompanying features of chronic conditions like sleep disturbance, depression, psychosocial disability, and pain, as pathognomonic of a particular disease or syndrome, but rather as reactions to the malady and thus as being of secondary importance (Turk & Monarch, 2002). So, pain is viewed simply as a symptom of tissue damage or underlying disease progress. All this has lead to the assumption that once the disease is treated, the secondary reactions to it, including pain, will go away, and in the case they do not, than speculations are raised regarding the possibility of a symptom with psychogenic nature (Turk & Monarch, 2002). Consequently, much of the skepticism mentioned arises from this dichotomous view of the traditional biomedical model in which symptoms are either somatogenic or psychogenic. Although today evidence to support this dichotomy is lacking, view has shaped the historic trajectories of pain theory and research.

Regarding pain in general and chronic pain in particular, the traditional biomedical model that dominated the past centuries and has remained subsequently prevalent amongst both healthcare professionals and most of their patients have a series of outdated assumptions. Humorously, as this article concerns psychologists and psychotherapists who are working with patients, the following outdated assumptions can be viewed and almost always must be treated as unadaptive or irrational beliefs in the course of therapy, not only seeing that they are not considered true anymore, but mainly because they represent a real hindrance on the psychological pain management process.

(1) The traditional biomedical assumes that the amount of pain experienced is proportional to the degree of disease activity or tissue damage, but research has shown that the amount of pain reported is very often not proportionate to underlying evidence of disease activity (Keefe et al., 2005). For example, Keefe et al. (1987) found that X-ray evidence of disease activity explained only a small proportion of variance in the reports of knee pain provided by osteoarthritis patients, not to add that psychological coping variables were much more important predictors of pain and adjustment to pain. This is in line with many other studies that found only modest associations between physical pathology and reported pain or disability (e.g. Wall, 1979; Flor & Turk, 1988). Eccleston (2001) also reminds us that: people report pain that has no identifiable lesion (e.g. cases of back pain, headache and angina), some patients can have tissue damage without any pain (e.g. 40% of patients with established reversible myocardial ischemia do not report pain), some patients experience pain in a location distal to the damage or experience pain in a missing or extra limb or location. In conclusion, we and our patients should be mindful of the fact that pain is not a reliable indicator of tissue damage or disease progression and that the last two are not a reliable indicator of pain. This conclusion along with the fact that, together the extent of damage and the level of pain do not necessarily determine the degree of disability or distress, are by themselves empowering beliefs that can do wonders in pain management settings.

(2) The traditional biomedical model assumes that interventions to eliminate or dramatically reduce disease activity or tissue damage will abolish or significantly reduce pain in spite of overwhelming evidence that medical or surgical interventions designed to eliminate underlying disease activity or tissue damage do not always abolish pain (Keefe et al., 2005). An important example can be found in Kroner et al.'s (1989) research that showed that up to 30% of women who have undergone mastectomy reported phantom pain in the breast that is no longer there and that women who had pain prior to mastectomy are more likely to experience phantom breast pain. More so, well known chronic pain cases which show that people who have experienced pain over long periods of time can develop neurological responses such that when the proper stimuli are present, their brain will respond as if in pain, have lead authors such as Fordyce (1976) to successfully describe the phenomenon in terms of the classical conditioning paradigm and to prove that experiencing pain in the absence of nociception can be no different from salivating at the smell of food. Indeed, such examples are problematic from the standpoint of early pain theories like the *specificity theory* or the *pattern theory* witch views the

brain as a passive recipient of sensory information traveling along these nerves. Because these early theories of pain that even today mark the mechanicistic biomedical model had no place for concepts like neuroplasticity to explain how neuronal and synaptic functions are capable of being perpetually shaped so that they influence subsequent perceptual experiences (probably because scientist some time ago thought that the brain was hard wired), these theories were not adequate for understanding persistent pain neither in the cases in which the "underlying medical causes" (tissue damage / diseases) were treated, neither in those in which they were not. Craig & Hadjistavropoulos (2004) suggest that understanding peripheral pathophysiological events is no longer sufficient because past experiences and current brain activity are capable of modifying neural input. So, exploring central neuroplasticity related to pain (Melzack et al., 2001; Seifert & Maihöfner, 2011) is paramount for understanding persistent pain and treating it effectively, as this concept explains persistent functional changes, or "somatic memories" (as some psychologists call them) produced in the nervous system over time. For example, it is known that activity in the prefrontal cortex becomes increasingly engaged and associated with the experience of pain as pain becomes more chronic (Apkarian et al., 2005), and this finding provides a neurophysiologic rationale for something that clinicians have long known: for the adequate treatment of chronic pain, processes related to the prefrontal cortex, such as memories and the meaning of the pain in the context of the patient's life goals, must be addressed (Jensen, 2011).

(3) The traditional biomedical model ignores or minimizes the role psychological factors play in disease-related pain, so that psychological responses such as anxiety or depression are viewed as secondary to pain and are not considered to play a direct role in the pain experience (Keefe et al., 2005). Today we know that patients' experiences of pain, their behaviors, and the neurobiological conception of nociception all support a psychological component of pain (Price, 2000; Clarka & Treismanb, 2004).

Extending on what we presented earlier, not only that the outcome of treating the physiologic cause of pain can be more readily determined by complex psychological factors, but also the analgesic effect of painkillers can be modulated by psychological factors. Not unlike the shocking medical discovery that arthroscopic surgery for osteoarthritis of the knee, one of the most commonly performed type of surgery for osteoarthritis after which about half the patients report relief from pain, was found to be no different from placebo surgery (Moseley et al., 1996; Moseley et al., 2002), in the field of anesthesiology, it has been found that verbal suggestions can change the direction of nitrous oxide's effect (a pain killer listed by the WHO as one of the most important medications needed in a health system) from analgesia to hyperalgesia (Dworkin et al., 1983; also, for reviews on placebo analgesia see Wager & Fields, 2013; and for nocebo hyperalgesia see Colloca & Benedetti, 2007).

Factors like depression and anxiety are so closely linked to pain that they became increasingly harder to study in chronic pain settings. Empirical studies consistently found a high association between chronic pain and depression, or distress as it is sometimes conceptualized (Wilson et al., 2001). Recognition of clinical forms of depression in chronic pain settings can be complicated by the presentation of somatic complaints, a majority of which are pain-related, leading to a big overlap between symptoms of depression and those related to pain or underlying disease. Although, the old question if depression is an antecedent or consequence of chronic pain may never receive a single unique answer (Fishbain et al., 1997), now we know that depression is very prevalent among chronic pain sufferers and that it certainly can exacerbate pain experience and related disability. The pain-anxiety link seems even stronger because both of them represent evolutionary adaptive mechanisms that initiate a series of physiological and emotional responses to threatful events. Often, acute pain will evoke the flight-or-flight response, mediated by the release of excitatory neurotransmitters, which is adaptive in evolutionary terms because it increases survival chances. The feeling of pain signals a disturbance in the body and elicits vigilance, high arousal and anxiety in order to protect it, but in the chronic case, pain and anxiety can cyclically interact so that they both are exacerbated without any real survival advantage. The sympathetic neuroendocrine response that accompanies anxiety can serve to heighten the sensitivity to painful stimuli and to amplify the pain experience, so quite commonly anxiolytic drugs are used along with painkillers because by treating anxiety, one can more effectively reduce the pain experience (Patterson et al., 1997; Janssen & Arntz, 1999).

Depression and anxiety are just two psychological factors from a plethora of variables studied or utilized in the psychological management of pain. For example, some of the other psychological variables that have an impact on pain experience are: fear, attention and vigilance, catastrophizing and worrying, avoidance, anger, self-denigration, type of coping, the ability to make sense of pain, the ability to

predict pain, and many others (Eccleston, 2001). Molding these psychological dimensions is the way in which psychological interventions can ameliorate or relief pain. This is an important consideration in order to better understand why so many forms of psychotherapy for chronic pain management target primarily improvements in physical, emotional, social, and occupational functioning rather than focusing on resolution of the pain experience alone.

So what is pain?

Around the 1600s, French philosopher René Descartes described pain as a simple reflexive response to physical damage. In this early model subsequently referred to as the *specificity theory of pain*, information about physical damage in the periphery detected by unique receptor mechanisms is transmitted through a set of specific nerves (pathways) to the spine and from there to a "pain center" in the brain. According to his model, "real" pain should be directly related to the amount of physical damage "causing" the pain, the brain being just a passive recipient of sensory information. Later on, Erasmus Darwin (Darwin & Darwin, 1974) accepting the idea advanced in Plato's *Timaeus*, that pain is not a unique sensory modality, but an emotional state produced by stronger than normal stimuli, will be one of the first advocates of what will eventually be called the *intensity theory of pain*. Another early theoretical perspective that is called the *pattern theory of pain* stated that painful information was not primarily due to activation of specific receptors and pathways but rather was due to the pattern of responses in the afferent systems (Nafe, 1929).

Although, these theories demystified painful experiences and prompted a wealth of scientific literature, they had many shortcomings. They focused on cutaneous pain and could not easily address issues pertaining to deep-tissue, visceral, or muscular pains, they could explain satisfactory acute pain but could not account for persistent pain and most importantly, the differentiation between nociception and pain was unknown or ignored.

Melzack and Wall's (1965) *gate-control theory* revolutionized the understanding of chronic pain and later its treatment. This theory postulates the existence of a gating system at the dorsal horn of the spinal cord that can control pain transmission from the periphery to the somatosensory cortices in the brain. The gating of pain signals is thought to be controlled by both peripheral input and the neural centers that govern thoughts, emotions and behaviors (Melzack & Wall, 1965). The authors acknowledged the scientific facts that there is a certain degree of specificity for peripheral nerve function and that there is a certain degree of pattern recognition that was responsible for the underlying peripheral and central processing of nociceptive information, through their theory providing new neuroscientific explanations that helped to reconcile the differences of specificity and pattern theories. This theory was also the first to acknowledge that the relationship between nociceptive information and pain is profoundly affected by affective and cognitive factors, a hypothesis that later became a scientific fact (Tracey & Mantyh, 2007).

Melzack's (2005) latest theory called *the neuromatrix theory of pain* postulates that pain is a multidimensional experience produced by characteristic "neurosignature" patterns of nerve impulses generated by a widely distributed neural network in the brain, the "body-self neuromatrix". The neurosignature patterns can supposedly be triggered by sensory inputs or independently of them. According to this theory there are many inputs to the brain that can trigger the pain neuromatrix including thoughts, emotions, touch, memories, fear and visual stimuli, for example. These stimuli can trigger a pain response not just because they represent a perceived threat but due to the fact that the widespread neurons that make up the pain matrix and are involved in all of the aforementioned activities, are also part of the pain neuromatrix. So, pain should be viewed as a subjective perception that results from the transduction, transmission, and modulation of sensory input filtered through a person's genetic composition and prior learning history and further modulated by the person's current physiological status, idiosyncratic appraisals, expectations, current mood state, and sociocultural environment, i.e. the body–self neuromatix (Turk & Monarch, 2002).

Based on the last two mentioned theories, the International Association for the Study of Pain defines pain as a multidimensional phenomenon composed of three interacting dimensions: (1) the sensory-discriminative (intensity, location, quality, and duration), (2) the affective-motivational (unpleasantness and the subsequent flight response), and (3) the cognitive-evaluative (appraisal, cultural values, context, and cognitive state) (Moayedi & Davis, 2013). Although these dimensions are not independent, they are partially dissociable, the cognitive or the emotional states of a person being able to modulate one or both of the other.

II. Method

1. Explaining pain to psychotherapy patients

Our model for explaining painful experience to patients is part of the actual working frame of the therapy and is based on Melzack and Wall's (1965) *gate-control theory*.

This information is presented in a metaphorical manner and each aspect is discussed with the patient in order to facilitate treatment planning, self-responsibility and self-efficacy and to set the scene for learning new adaptive coping skills.
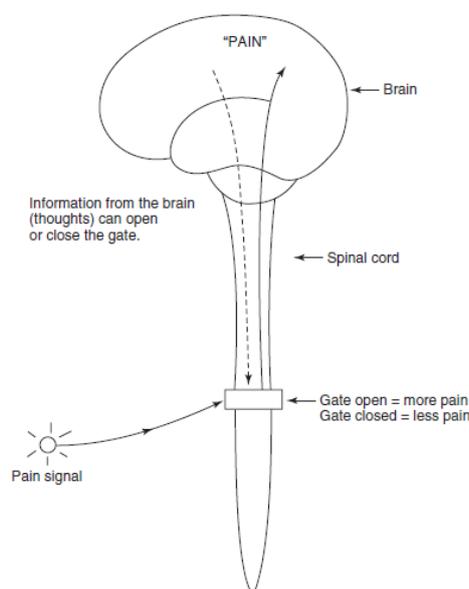
Also, in order to ease the prescriptive aspects of pain management, the patients are presented with a list of "life ingredients" that either "open the gate" or "close the gate" of pain.

Figure 1 – The Gating System of Pain

Ingredients that Open the Gate (Table 1)	
Physical	Degenerative changes, muscle tension, medication or drug abuse
Cognitive	Attention to pain, thoughts about uncontrollability of pain, low self-efficacy, beliefs about pain as a mysterious, terrible thing
Emotions	Depression, fear/anxiety, anger
Activity	Too much or too little activity, poor diet and other health behaviors, imbalance between work, social, and recreational activity
Social	Little support from family and friends, others focusing on your pain, others trying to protect you too much

Ingredients that Close the Gate (Table 2)	
Physical	Medication or drugs, surgery, reduced muscular tension
Cognitive	Distraction or external focus of attention, thoughts of control over pain, high self-efficacy, beliefs about pain as predictable and manageable
Emotions	Emotional stability, relaxation, and calm, positive mood
Activity	Appropriate pacing of activity, positive health habits, balance between work, recreation, rest, and social activity
Social	Support from others, reasonable involvement from family and friends, encouragement from others to maintain moderate activity

Tables 1 and 2 - Life Ingredients that Open/Close the Gate of Pain. Taken and adapted from Otis (2007).

2. Training pain coping skills in psychotherapy

Unlike the psychological interventions for acute pain, the ones aimed at alleviating or managing chronic pain, irrespective of the psychotherapy school of thought, all have the same general objective which is to facilitate the learning of adaptive coping skills for pain. Usually, the main difference between pain management techniques pertaining to different psychotherapeutic approaches stems from their unequal focus on the cognitive, emotional, behavioral and social dimensions of the coping strategies they teach their patients. Most of these therapeutic techniques that carry within them valuable coping strategies involve attention directing processes or normative dissociation experiences, altering of pain-related emotions, activity pattern modifications and interpersonal and interrelational skill building for better social support.

Brown and Fromm (1987) have sorted a general conceptual set of coping and self-control strategies for pain management called *the 4 A's of pain management: Avoidance, Alteration, Alleviation,* and *Awareness*. Although the authors presented this list as generic hypnotic and cognitive pain coping strategies, the 4 A's are general experiential strategies used naturally and spontaneously by patients dealing with pain, as well as common tools in any psychological intervention for pain.

Coping strategies pertaining to *avoidance* of pain are: internal and external distraction, shifting the focus of attention, displacement to another part of the body (of pain or other sensation), focusing on breathing, internal state or imagery, dissociation or flow states, meditation or contemplation in order to discover internal or external resources, recalling pleasant memories or life events portraying to situations with an abundance of resources, and imaginative positive future progressions (Eimer, 2000).

Strategies for pain *alteration* include: reframing the painful experience or the meaning of pain, relabeling terms associated to pain to more neutral or manageable sounding concepts, modification of catastrophic interpretation or ideation and general techniques for anxiety reduction, self-image modification, imagery rehearsal for stress-related techniques for different pain triggering situations, sensory transformations and symptom substitution, imaginal numbing or comfort states or eliciting pain relief imagery, imaginal transformation of pain context, pain sensation or experience, dissociation from pain or from the body (Eimer, 2000).

Pain *alleviation* strategies are: direct or indirect suggestions for reduction in pain intensity, frequency, pattern of sensation or duration, suggested numbness due to real or imaginary stimuli (e.g. imaginary ice or real pain medication), suggestions for pain substitution with other sensation (Eimer, 2000).

Strategies pertaining to *awareness* of painful experience are: shortly focusing on and describing pain in order to later facilitate other experiential processes like relaxation, letting go of pain or emotional insight stimulation, dispassionately and passively watching the pain, objectively describing it, and feely associating to how it feels, pain diary keeping, and rating the pain's magnitude and intensity (Eimer, 2000).

It is important to mention that every person has a set of preferred or habitual coping strategies relating to pain, some of them being adaptive and some maladaptive, even in a potentially idiosyncratic way (what's good for one person is bad for another); that these strategies are linked to previous life events and that the strategies can be both adaptive or maladaptive for the same person depending on the context, frequency of use (or abuse), and attributed meaning or associated emotional state.

3. An experiential protocol for working with pain

- Step 1: Establishing safety and building the therapeutic alliance

Therapists acknowledge that the patient's pain is real and manifest a compassionate empathic involvement. It is important to build a "safe space" for patients in order for them to open up first and then be able to explore their response to their pain in a non-reactive manner (the witness/observer position in the U.E.P. framework). Therapists give information about the mechanisms of pain, facilitate hope and create expectancy.

- Step 2: Information gathering and assessment of pain and illness context

The initial interview should focus on: (1) an assessment of the intensity, location, and quality of pain and general time characteristics, including duration and frequency of pain and time course of pain in a typical day; (2) identification of factors that increase or decrease pain – it is also important to know how low the pain intensity can go in naturally occurring situations and without the use of medication because maximization of the time periods spent at this low level of pain can be an initial first goal of therapy; (3) an exploration of the patient's family and work activities and the effects that the patient's pain has on significant relationships in order to examine patterns of

pain behavior and patterns of reaction to pain; (4) an assessment of cognitive factors such as beliefs about pain (e.g. my pain is a punishment, a curse, a sign that I'm not getting better), irrational or alarming cognitions (e.g. the pain has made me a worthless individual, my pain is hurting the ones I love), and negative expectations (e.g. my condition is hopeless and helpless, I won't be able to do anything anymore); (5) an analysis of emotional responses that may be contributing to pain or pain behavior (e.g. depression, anxiety, or guilt); (6) examining other pain-associated factors (e.g. sleep dysfunction, disabilities, social isolation) that interact on many levels with the experience of pain itself and hence contribute to an nonlinear increase in general suffering.

- Step 3: Developing awareness and exploring the emotional dimensions of pain

Psychotherapists should catalyze inner search and enhance patient's awareness in order for them to reflect more objectively and detached on their experience of pain, responses to pain, meaning of pain and how the current condition fits in (or doesn't) with their life's scenarios. Thoughts, feelings and actions should be validated, normalized and worked upon. Explorations and insights on personal resources and coping strategies should also begin at this stage of therapy. Psychotherapist should guide patients to explore their own maladaptive patterns like trying to avoid the pain, simply get rid of it, using inappropriate activity-rest cycles or meaningless distractions and so on.

- Step 4: Relaxation and meditation approaches

Relaxation methods or meditative practices can help break the link between stressful events and maladaptive emotions and pain. Relaxation and stationary meditation practices have direct effects on specific muscles and most pain becomes indeed linked to muscle tension. They also reduce general arousal, have benefic cognitive effects (not only as a distraction and attention diversion), and increase the patient's sense of control and self-efficacy. Patients should be taught how to perform these techniques and be reminded that they can be used in any situation in which adaptive coping is required. Creative meditation is particularly useful in facilitating the activation of unconscious resources.

- Step 5: Actively developing and training adaptive coping mechanisms

The main objective of this step is to achieve an overall acceptance of pain and willingness to engage in valued life activities regardless of pain. Psychotherapists should look to acknowledge what patients can do themselves and to boost patient's self-efficacy, self-esteem and self-worth. Both patient's

coping efforts and their abilities outside of their pain should be validated, encouraged and worked upon. In this step patients should be enabled to broaden their awareness beyond the pain, although still acknowledging the presence of pain. Therapists should also focus on limiting maladaptive coping strategies like being passive, inactive or avoidant, affected body part guarding, cessation of vocational activities and use of strong analgesic medications on a pain-contingent basis which actually increases tolerance for their effects.

- Step 6: Working with attention and dissociation

Therapists should guide patients to experiment with attention and dissociative processes, to "play" with the pain sensation or representation. The objective is to have patients live new insightful experiences that act like active coping resources and facilitate more control over as many facets of pain. There is an abundance of techniques to use which includes: absorption-imaginative involvement (e.g. absorption in the internal world of perception, thought, imagination, or memory, along with the contemporaneous loss of awareness of self, place, behavior, and passage of time), flow states (or optimal experiences portraying to a dynamic interplay between challenges and skills), fantasizing or dramatizing activities (especially those that have a "real" hallucinatory quality), re-experiencing of past events, mildly modified or altered states of consciousness (e.g. relaxation, guided imagery, trance states, meditation, contemplation).

- Step 7: Reframing painful experience and accepting pain

At this stage patients should be guided to shift their focus from pain relief toward a broader conceptualization of treatment outcome. Psychotherapists should start to catalyze an experiential integration of therapeutic and other resourceful experiences and to switch to working on general life goals. Residual intractable pain should be reframed. For example, in one case in which episodes of pain persisted in the context of a grave chronic and life threatening illness, pain was reframed as an unconscious effort to hang on to life, which lead to an increase in fighting spirit. In another case that presented itself both with largely unmanageable pain and with deep inner conflicts which urged psychotherapeutic work, the pain was conceptualized by the patient as being linked to the conflict and through reframing the patient accepted that the pain picture would improve as the existential challenges resolved which made working on both problems at the same time very efficient. Thus, at this stage hope

should already be restored and therapists should guide patients to readapt to life and accept the parts of pain that remain persistent.

▪ Step 8: Implementing and reinforcing the benefic effects of therapy and actively engaging in life

In the final stages of therapy, psychotherapists need to test the implementation of the newly acquired pain management strategies (e.g. activity pacing, relaxation exercises), validate the new meanings attributed to pain, illness, and related contexts, assess mood and emotional developments, reinforce adaptive coping skills and support the patients to actively engage in future projects and in life.

III. Conclusions

As medical interventions frequently cannot completely resolve chronic pain, the need for psychological management approaches to chronic pain is increasing. Thus, due to the increasing involvement of psychologists and psychotherapists in the assessment and treatment of disease-related pain, such as pain secondary to cancer, arthritis or fibromyalgia, applicative methodologies and guidelines need to be provided in order to aid practitioners in their endeavor. The present article aimed to provide a review on techniques, principles and guidelines portraying to the U.E.P. philosophy that stem out from the conceptual background of psychological pain management. Also a sui generis experiential psychotherapy protocol for pain management was outlined in order to guide the practitioners in their field of work. The techniques discussed here have proven to be effective in clinical settings on a variety of pain conditions. Unfortunately, highly personalized (patient centered) approaches such as the experiential ones are harder to disseminate and their efficacy is difficult to quantify in naturalistic settings.

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