

# NON PHARMACOLOGICAL MANAGEMENT OF PAIN IN TERMINALLY ILL PATIENTS

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Terminal illness is an incurable disease that cannot be adequately treated and is reasonably expected to result in the death of the patient within a short period of time. This term is more commonly used for progressive diseases such as cancer or advanced heart disease than for trauma. A patient who has such an illness may be referred to as a terminal patient, terminally ill or simply terminal. An illness which is lifelong but not fatal is a chronic condition.<sup>1</sup>

‘Terminal illness is a medical term popularized in the 20th century to describe an active and malignant disease that cannot be cured or adequately treated and that is reasonably expected to result in the death of the patient

## General symptom in terminal illness-

Physical symptoms other than pain often contribute to suffering terminal illness. In addition to pain, the most common symptoms in the terminal stages of an illness is

- Fatigue
- Changing vital signs
- Anorexia
- Cachexia
- Nausea
- Vomiting
- Constipation
- Delirium
- Dyspnea
- Psychological Issues
- Sleep change
- Anxiety
- Stress

**Pain as major problem in terminal illness-** Pain is common for people living with a terminal illness. Pain affects different people in different ways. Pain can be caused by the illness itself, treatment for the illness such as an operation, or, it might be caused by a condition patient had for a while, such as arthritis.

The perception of pain is affected not only by physical symptoms but also by psychological factors, such as the emotions of fear or anger, by social factors, such as worry about family and finances, and by spiritual belief. Sometimes people worry that their pain might indicate that the disease has spread.

Pain at terminal illness is significant such as cancer, late HIV disease, degenerative diseases, Most people equate pain at the end of life with terminal illness. Surveys of adult cancer patients with advanced disease—often performed in a hospice or palliative care setting indicate that the prevalence of pain ranges from 50% to 90%.<sup>1</sup> It is said that 40-50% of those with pain from cancer report it to be severe while 25-30% describe it to be very severe.

Pain is common in terminal illnesses -- more than 70% of patients with terminal interest experience severe pain. Studies have shown that the incidence of pain (and its poor relief) is similar for patients with end-stage COPD and heart failure.

**Weiss SC1, Emanuel LL** was conducted a study to understand the Pain in terminal illness. The study shows that 496 (50%) terminally ill patients reported moderate or severe pain. 514 (52%) individuals had seen a primary-care physician for treatment of pain in the previous 4 weeks and 198 (20%) saw a pain specialist. Of those who had been treated by their primary-care physician, 287 (29%) wanted more therapy, 613 (62%) wanted their pain therapy to remain the same, and 89 (9%) wanted to reduce or stop their pain therapy.

A terminally ill patient can be feel different type of pain like –

- Acute Pain,
- Chronic Pain,

- Neurophetic Pain,
- Visceral Pain,
- Bone Pain Breakthrough Pain,
- Referred Pain
- Total Pain.

### Bio psychosocial Model

This model encompasses biological, psychological, and social aspects of care and has been applied to patients with terminal illness pain. There also exists a spiritual or existential aspect of pain for those patients who have diagnosis of terminal illness. Pain-related quality of life has been classified into three variables of well-being corresponding to the bio psychosocial representation, i.e.

- Physical well-being;
- Psychological well-being
- Interpersonal well-being

The prevailing model of pain, the gate control theory, postulates a spinal cord control mechanism in the dorsal horn that receives ascending and descending signals from nerve tracts and balances their integration. Pain perception is ultimately determined by biological evaluation of these inputs. The importance of the gate control theory to a discussion of treatment of patients with cancer pain is that descending cortical inputs that affect pain perception include psychological and psychosocial variables such as beliefs about pain, emotions, reactions to stress, and cognitions. Therefore, interventions that target modification of these factors can change pain perception and experience.

**Importance of nonpharmacological management of pain in terminal illness-**Non-pharmacological approaches help to-

- Increase the individual ability to control feeling.
- Reduce the feeling of weakness.
- Enhance the functional capacity and activity level.
- Reduces anxiety and stress.
- Decrease the pain behavior and focused pain level.
- Decrease the dosage of analgesic drugs, subsequently decreasing the well-known side effects of these drugs.

**Types of non-pharmacological intervention-** it can be majorly divided in three categories-

- **Physical (sensory) interventions**
- **Psychological interventions**
- **Spirituality and religion**

#### Physical (sensory) interventions-

**Massage-** Pain can confound the patient condition as it can elevate stress, altering posture, and decrease one's ability to improve health condition. It is the process of rubbing and kneading parts of the body, especially joints and muscles with hands to relieve pain and decrease tension. Massage can interrupt the patient's cycle of distress. It can increase the blood circulation as well as lymphatic circulation. Massage can also start an analgesic effect to the area being rubbed and drop inflammation and edema. Besides, it can release muscle spasms physically while increasing endogenous endorphin release, and conflicting sensory stimuli that supersede pain signals.

**Positioning-**Positioning is a physical intervention that contains maintaining a good body alignment to reduce stress & anxiety. It helps to avoid additional complications, reduces the risk for developing injuries, prevents emerging bed ulcers and most importantly reduce alleviate pain. Therefore, positioning the patient correctly and re-positioning can help with the above complications.

**Hot and cold-** Several studies have shown reduction in pain, anxiety, nausea and heart rate in patients treated with active warming for pain This is an inexpensive and easy-to-use therapy with minimal side effects when used appropriately. Cold therapy includes applying a cool substance or device to any part of the body. Numerous studies have reported that cold treatment can increase pain threshold, decrease edema, and suppress the inflammatory process. Cold compresses may be used between 15 and 30 min time periods and up to 2–3 times per day.

**Acupuncture-** This has been used for around 5000 years, and it is considered one of the world's oldest arts of an empiric body healing. Basically, acupuncture works by putting the needle in specific region of the body, which stimulates the nerve. Each needle will cause no discomfort to little discomfort to the patient, but it will produce a small injury at the insertion area which will stimulate the body and the immune system to increase circulation, wound healing, pain modulation and pain analgesia.

**Transcutaneous electrical nerve stimulation-** Transcutaneous electrical nerve stimulation (TENS) is an electrical device used to treat pain. It consists of battery-powered unit and has 2–4 leads connected to sticky pads, which are positioned over the

skin to cover or surround the painful area. The TENS unit delivers a low-voltage electrical impulse to the padded surface electrodes in a series of alternating electrical current impulses.

### Psychological interventions

**Biofeedback-** Biofeedback is a learning technique through which patients learn to interpret feedback (in the form of physiological data) regarding certain physiological functions. For instance, a patient may use biofeedback equipment to learn to recognize areas of tension in their body and subsequently learn to relax those areas to reduce muscular tension.

**Cognitive behavioural therapy-** CBT helps to develop important set of coping skills intended. to improve psychological functioning, including behavioural activation, structured relaxation exercises, recalling and scheduling of pleasurable events, dogmatic assertive communication, and behavior pacing aiming to avoid prolongation and/or exacerbation of flares of pain.

**Mindfulness-based stress reduction-** it disconnects the link between the sensory elements of pain from the emotional and evaluative elements and enhances uncoupled awareness of both somatic and psychological sensations. Because the signal of pain usually cannot be distinguished, such detachment may alter the response to pain.

**Relaxation training-** It is generally accepted that stress is a key factor involved in the exacerbation and maintenance of chronic pain. The focus of relaxation training is to reduce tension levels (physical and mental) through activation of the parasympathetic nervous system and through attainment of greater awareness of physiological and psychological states, thereby achieving reductions in pain and increasing control over pain. Patients can be taught several relaxation techniques and practice them individually or in conjunction with one another, as well as adjuvant components to other behavioral and cognitive pain management techniques. Some example of relaxation training are - Diaphragmatic breathing, Progressive muscle relaxation,

**Guided imagery-** The term guided imagery denotes the technique used in the voluntary instance, by which images are recalled from long-term or short-term memory, or created from fantasy, or a combination of both, in response to guidance, instruction, or supervision. Guided imagery is therefore the assisted simulation or re-creation of perceptual experience across sensory modalities. Since many years, the effectiveness of guided imagery has been validated by research, demonstrating its positive impact on health, wellness, attitude, behavioural change and peak performance. Recently, it has been increasingly explored in different medical settings, like for managing post-operative pain, fibromyalgia, low back pain or musculoskeletal-related pain.

**Hypnosis-** hypnosis for pain management has increased with recent evidence that hypnosis can reduce pain (and costs) associated with medical procedures (Lang et al., 2000). In recent years, the anecdotal and sometimes exaggerated evidence for the effectiveness of hypnosis to decrease sensitivity to pain - known as **hypno-analgesia** has been supplemented by well-controlled experiments

### Spirituality and religion-

In the middle ages, pain was considered a religious matter. Pain was seen as God's punishment for immoralities, or as evidence that an individual was controlled by demons. Divine counselling in such situation can be more of a priority than medical treatment. Major parts of Hindu supporters consider pain as a God punishment or as a result of personal actions. In Islam, it can be malicious or Allah's willingness. A common Buddhist belief is that suffering is the price of attachment. Spiritual and religious beliefs are important in many individuals' lives. Both religious and spiritual beliefs help some people accept their own illness and help explain illness for others. Religion can supply the client, the family, and health professionals with a sense of strength, security, and faith during a time of need.

**Conclusion-** The role of non-pharmacological approaches to pain management is evolving, and some no pharmacological and complementary therapies have an increasingly important contribution to make to holistic patient care alongside analgesics. Generally, these approaches are relatively inexpensive with high safety profile and low side effects. There is evidence to support the use of patient education, cognitive behavioural therapy (CBT), relaxation, music, and other modalities. These therapies should be taken into consideration to help and support the standard pharmacological treatment in pain management. While medical drugs are essentially being used for treating the somatic (physiological and emotional) dimension of the pain, non-pharmacological therapies aim to treat the cognitive, affective, behavioural and socio-cultural dimensions of the pain.

### References:

- [1] Hui, David; Nooruddin, Zohra; et al (2014-01-01). "Concepts and Definitions for "Actively Dying," "End of Life," "Terminally Ill," "Terminal Care," and "Transition of Care": A Systematic Review". *Journal of Pain and Symptom Management*.
- [2] Battling And Beating Cancer: The Cancer Survival Book, Charlene Mc Mann-Seaman; Xlibris Publishers, 2009
- [3] World Health Organization. Noncommunicable Diseases (NCD) Country Profiles. Geneva (CH): WHO; 2014.
- [4] White L, Duncan G. Medical Surgical Nursing: An Integrated Approach. 2nd ed. New York: Delmar Thomson Learning; 200
- [5] Cusick J. Spirituality and voluntary pain. APS Bulletin. 2003. Available from: <http://www.ampainsoc.org/pub/bulletin/sep03/path1.htm> [Accessed: 18-08-2005]
- [6] Eccleston C. Role of psychology in pain management. *British Journal of Anaesthesia*. 2001;87:144-152. [PubMed]
- [7] Means-Christensen AJ, Roy-Byrne PP, Sherbourne CD, et al. Relationships among pain, anxiety, and depression in primary care. *Depression and Anxiety*. 2008;25:593-600. [PubMed]

[8] Gatzounis R, Schrooten MG, Crombez G, Vlaeyen JW. Operant learning theory in pain and chronic pain rehabilitation. *Current Pain and Headache Reports*. 2012;16(2):117-126. [PubMed]

[9] Day MA, Thorn BE, Burns JW. The continuing evolution of biopsychosocial interventions for chronic pain. *Journal of Cognitive Psychotherapy*. 2012;26(2):114-129

