



NON-PHARMACOLOGICAL BEHAVIORAL INTERVENTION FOR CANCER TREATMENT SIDE EFFECTS FOR CHILDRENS

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Abstract

As cancer treatments have become more aggressive over the past two decades, it has become evident that new tactics are needed to control pain, nausea and other unpleasant side effects. Behavioral science and theory offer hope for no pharmacological treatment option. As part of a broader movement known as "behavioral medicine," providing psychological counseling to cancer patients has found wide acceptance among medical professionals on the front lines, as well as patients themselves. One of the most popular psychological services offered at major cancer centers is behavioral modification..

Keywords:Side effects, therapy, non pharmacologic intervention and Behavioral interventions.

Introduction

The World Health Organization consensus conference on paediatric cancer pain has recognised behavioural therapy as the principal treatment for side effects in children who have undergone a variety of diagnostic and therapeutic procedures. The Agency for Healthcare Research and Quality offered similar suggestions. Because of their immediate influence on pain and suffering, relative ease of execution and sensation of control, therapeutic treatments are often adopted by patients at a time when they are vulnerable. The purpose of this article is to discuss behavioural therapies for cancer patients of all ages.

Behavioral Medicine

Behavioral science has contributed substantially to the development of appropriate intervention techniques for adults and adolescents to promote healthy psychosocial adaptation over the past 40 years. Psychology and education have made significant contributions to the study of human behavior. There have been a wide range of issues covered in the work, including remedial education and training for patients with intellectual disabilities, as well as the recovery of institutionalized psychiatric patients

For the first time, the early behaviourists emphasised the importance of immediate contextual influences rather than elaborate models that specified distinct psychological demands. "*Sigmund Freud, Carl Jung, and other intrapsychic theorists*" tried to analyse the "*long-term effects of unresolved childhood problems*" and used prolonged psychoanalytic inquiry before the early behaviourists concentrated on the here and now. They may be better described as realistic in their behavioural methods, attempting to change environmental and social conditions while also addressing ability limitations that impair day-to-day functioning.

There has been a rise in the use of behaviour modification strategies in the medical and educational communities to tackle increasingly complicated problems. Behavioural interventions have touched practically every aspect of our lives. The approach's widespread use has had the important side effect of increasing our knowledge of the role that cognitive processes play in action. Terms such as "cognitive behavioural therapy," "cognitive behavioural approach," and "behavioural medical



intervention" are used to express the developing conceptual underpinning of behavioural intervention. This study will use the phrase "behavioural intervention."

It was in the early 1970s when the therapeutic approach to treating and preventing illness was first put into practise. Biofeedback research has been a spark in the treatment of headaches, asthma, and epilepsy. Electromyographic feedback, heart rate, body temperature, and other types of biofeedback are all examples of non-volitional functions that can be monitored in real time using biofeedback. When a person receives biofeedback, they often do it while lying on a table, passively trying to keep tabs on several vital functions. Academics and the general public alike have been struck by the significant impact that this type of training has had on people suffering from conditions such as asthma, epilepsy, and migraine headaches. The Yale Conference on Behavioral Medicine was established in response to the importance of biofeedback

1. Preventive and rehabilitative care are also possible applications of this subject.
2. Its departure from psychosomatic medicine.

Unlike behavioural medicine, which sprang out of the social and behavioural sciences, psychosomatic medicine focuses on the cause and progression of illness. Research on the use of behavioural medicine in cancer treatment began in the early 1980s. Cancer chemotherapy's unpleasant side effects could be lessened via the use of relaxation, hypnosis, and diversion, as early study showed.

With a professional society and at least five journals, it's reasonable to conclude that behavioural medicine is currently a popular topic of study among NIH scientists. Behavioural medicine is also becoming increasingly popular with cancer-focused organisations and specialised associations. The American Cancer Society and the National Cancer Institute finance behavioural research, both inside and outside of the lab, as part of their efforts to prevent and regulate the growth of cancer cells.

There is a strong emphasis in behavioural therapy on the practical aspects of execution and attention. There are many factors that might influence a person's behaviour, and the clinician is interested in how those factors can be influenced to help them cope better. Cancer, on the other hand, makes it difficult to modify the underlying physical causes of behaviour. Aside from the fact that we know what causes side effects (e.g., how chemotherapeutic medicines cause vomiting), it would be ill-advised to adjust these aspects in order to reduce the adverse effects of aversion (e.g., reduce treatment harshness). *"For this reason, clinicians have focused on teaching patients behavioural coping skills. Anxiety, nausea, pain, and accompanying depression can all be alleviated with training."* The doctor and the patient usually work together, and the patient is responsible for most of the interventions. Patients who are particularly fearful of needles can be taught self-hypnosis and timed breathing techniques, and they can subsequently be taught how to employ these new skills during aversive medical procedures [1,2]

VARIOUS TYPES OF BEHAVIOURAL THERAPY

Before describing specific approaches to reducing the negative "side effects of cancer treatment", it is important to note the need for evaluation in behavioral intervention. Behavioral intervention differs from more classic psychodynamic treatments in that it places great value on continuous assessment. At all stages of the intervention, this assessment is essential.

1. Before commencing the intervention, determine which aspects of the patient's surroundings need to be changed and how much help the patient has available.
2. While the intervention is taking place, to provide feedback on the procedures utilised so that they can be adjusted to better meet the patient's needs.
3. Directing follow-up treatment following the conclusion of the intervention. Every patient's conduct must be noted in terms of frequency, intensity, and context during assessment in every situation.....

Behavioral intervention has been shown to lessen the unpleasant side effects of cancer treatment by utilising the eight techniques listed below:

1. "Conceptual distraction,
2. Contingency management,
3. Intellectual distraction,
4. Hypnotherapy imagery;
5. Systematic desensitisation,
6. Emotive visuals,
7. Relaxing training,
8. Cognitive restructuring;, and
9. Modeling."

Each strategy is briefly discussed below. Behavioral studies in education and psychology, as well as practical concerns and clinical judgement, have led to the application of these behavioural techniques to specific cancer treatment issues.

1) Contingency management

With contingency management, patients can be encouraged to stick to their drug regimens through the provision of rewards (prizes, therapies, or special events). It's most typically used on children with cancer to encourage them to cooperate. Parents could, for example, implement a scheme in which their child earns stars for remaining still during unpleasant diagnostic and therapeutic procedures in exchange for a particular item or treatment. It is common practise to employ contingency management as part of a larger therapy programme that incorporates a variety of behavioural modalities.

2) Cognitive/attentional distraction

This kind of distraction is used to cure nausea as well as to control acute pain and anguish and distress. During invasive procedures, patients engage in behaviours that are both fascinating and absorbing. The concept that the patient's attention is distracted from (i.e., his/her perception of) unpleasant sensations by his/her participation in the mission have not been formally established, although it is hypothesised. It is possible to avoid unpleasant side effects by engaging in diversionary activities such as narrating, playing computer games, or blowing bubbles with a party blower.

Due to the ease with which venipuncture and other unpleasant therapies can be performed, a clinical problem is rare. Patients should be taught how to concentrate for extended periods of time as part of long-term therapies. Distraction tasks are used when symptoms recur in order to regain

control of the patient. [2]

3) Hypnosis/distracting imagery

Although hypnosis has long been considered a psychoanalytic tool in psychotherapy, more recent conceptualizations situate it specifically in the behavioural domain. According to this theory, hypnosis makes use of what are now considered "traditional" methods of influencing behaviour (e.g., distraction and relaxation). However, current hypnosis researchers accept that hypnosis is not a psychological therapeutic modality in and of itself, but rather a method that falls under the umbrella of behavioural therapy. Hypnosis should be acknowledged as a legitimate therapeutic practise in order to dispel the idea that it is an ethereal experience.

For the purpose of coping with a mental health problem, the patient is taught to focus on thoughts and pictures that are unrelated to the source of their pain. Meditation-like travels to intriguing places and activities are used by the physician when the patient is at ease. Children's involvement in the creative process can be fostered through the use of storytelling. It appears that hypnosis and attention/cognitive distraction require similar talents, based on this research thus far. The most common negative effects of hypnosis in cancer patients are anxiety and nausea.

4) Going to reduce one's extreme reaction

This technique can be used to change patients' negative reactions to treatment-related stimuli. Hierarchical addition of feared stimuli and events is done starting with the least dreaded and working up to the most feared. The patient remains calm and relaxed throughout each session. In addition to in-vivo re-exposure, Imaginal or real-life re-exposure to the dreaded stimuli/events may be used. Repeated exposure has been shown in studies to be effective in reducing anxiety. In vitro systemic desensitisation is used to treat a cancer patient's life-threatening eating disorder following successful gastrointestinal surgery [3,4].

5) Emotive imagery

When a child's inherent interest regarding fantasy and storytelling are harnessed, it's a unique approach. At this point in their relationship, they have built up the child's confidence and trust in them and are able to tell them a series of stories that revolve on them and their favourite characters from their favourite books. Heroism is sustained when it is possible for the kid to see himself or herself as being helped by someone else, such as the hero. The hero and the child move closer and closer to the dreaded scene or process in each subsequent tale. Reduce anxiety by seeing unpleasant stimuli or procedures in vivid, fear-inducing detail in your mind's eye. Parents are regularly involved in invasive diagnostic and therapeutic procedures and narrate the experiences.

6) Relaxation training.

Patients can learn how to achieve deep relaxation and divert their attention away from their discomfort or anxiety by undergoing relaxation training. An audiotape or therapist can teach the patient relaxation techniques, such as how to tense and release their muscles, or teach them how to breathe deeply. When the patient has had a few sessions of practise, he or she can quickly learn to keep track of their level of relaxation. Relaxation and sadness and anxiety reduction can be achieved through a variety of methods that are closely related. They all have the same thing in common: relaxation. Patients can choose from a variety of relaxation techniques, such as focused imaging, stretching and releasing muscle groups, or decreasing respiration. For years, hypnosis has been used to teach relaxation techniques including deep breathing and vivid visualisation. As a result, in professional settings, relaxation and hypnosis are frequently misunderstood.

7) Cognitive reform

The patient's nervous beliefs and behaviours are restructured using cognitive restructuring techniques. Modern psychotherapists frequently employ this approach, encouraging their clients to see life's tragedies as manageable and even beneficial to them. As a result, "restructuring" of the patient's thoughts and values is necessary. Medical treatment/procedures are discussed by both the patient and the practitioner in order to identify those that elicit dread and discomfort. As a result, it's recommended that the patient seek out a variety of techniques to understand and cope with the apprehensive event (s).

8) Modeling

Learning how to cope with invasive diagnostic and treatment procedures can be taught via in-vivo or videotape models of successful coping. With youngsters, it is the most prevalent method. For instance, one can use a film in which a child who has to have bone marrow aspirations repeatedly talks about the thoughts and feelings that he/she often has and then exhibits behavioural coping methods to control his/her dread and anguish. [5,6,7]

Implications for Understanding Biobehavioral Processes

Behavioral medicine has a vital role to play in cancer, but it's also important to keep in mind the broader field of behavioural science. Studies of behaviour in "cancer prevention and control" offer an exceptional opportunity to enhance behavioural psychology.

Conclusion

To understand the fundamental mechanisms of behaviour modification, behavioural medicine research is essential. Patients' anticipation about chemotherapy side effects were a special focus for these researchers. Side effects from chemotherapy are directly related to the patient's belief that they can respond to treatment. To better understand psycho-behavioral processes and the mechanisms of behaviour modification, cancer research can be used as a case study. There are numerous benefits to using an effective behavioural intervention in healthcare settings to streamline and optimise these procedures.

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