Pain Medicine

Treating Chronic Pain with CBT after a Stomach Cancer: What Strategies Can Be Used?

Dear Editor,

We write to make some comments and pertinent observations regarding a recent case report. The International Association for the Study of Pain (IASP) [1] defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." The IASP's definition highlights the multidimensional and subjective nature of pain, a complex experience that is unique to each individual.

Operant behavior therapy for chronic pain is guided by the original operant conditioning principles proposed by Skinner [2] and refined by Fordyce [3] to be applicable to pain management. In this model, conditioned behaviors occur as a product of learning the consequences of engaging in the given behavior.

Cognitive restructuring entails recognition of current maladaptive cognitions the patient is engaging in, challenging of the identified negative cognitions, and reformulation of thoughts to generate balanced, adaptive alternative thoughts.

Research [4] has found cognitive behavioral therapy (CBT) to be an effective treatment for chronic pain and its sequelae as marked by significant changes in various domains when compared with wait-list control conditions. A meta-analysis [5] of 52 published studies compared CBT to habitual treatment control conditions and active control conditions at various time-points. It concluded that complicating the interpretation of findings concerning effectiveness, patient characteristics and additional variables were found that might independently affect treatment outcomes. Hence, the interest of presenting clinical cases describing CBT treatment of specific patients.

Ms. Y is a 40-year-old patient. Two years ago, she underwent several surgical interventions for a stomach cancer. She recalls them as having been extremely painful. Since then, she has suffered from an "indescribable pain." This pain was originally focused on the digestive sphere before spreading to other parts of the body. She describes it as feeling like an "electrical shock," a "stabbing" and a "pinching" sensation.

We quickly noted that conditioning plays a major role in Ms. Y's problem. She tends to link her pain to certain noises or smells that she encountered when she was hospitalized the first time (in intensive care)—a situation that was perceived as traumatic by Ms. Y. Since then, she cannot tolerate any noise or smell, and she is frightened when she has to go out or to meet others. Indeed, neutral stimuli (noise, smell, crowds, etc.) are very stressful for Ms. Y. Any pain is automatically associated by the patient to a recurrence of her cancer.

Ms. Y has greatly reduced her activities, and because she always anticipates uncontrollable pain, she has developed some coping strategies like travelling during off-peak periods.

Our interventions, which are organized around operant behavior principles, aim to extinguish Ms. Y's maladaptive pain behaviors through the same learning principles that may have created them. Thus, we include graded activation and use of reinforcement principles to increase well-adapted pain behaviors and decrease maladaptive ones.

Based on the hierarchical list of situations associated with her pain (see Table 1), Ms. Y is instructed to safely break the cycle of inactivity by reengaging in activity in a controlled and time-limited fashion. In this manner, Ms. Y can gradually increase the length of time and the intensity of her activity to improve functioning.

Ms. Y is invited to reassess and reframe the way she thinks. For instance, Ms. Y went shopping with one of her daughters in a large store. Associated cognitions described by the patient were the following: "I am going to faint," "Pain is going to come back," "Why am I here?" In reply, we asked Ms. Y: "How could you think differently?" "Try to think about what your daughter was thinking at that moment." "Now, what do you think about the situation?" This step corresponds to what it is called "cognitive reframing." Cognitive reframing is used to help patients identify and challenge overly negative pain-related thoughts and to replace these thoughts with more adaptive coping thoughts.

Ms. Y keeps track of the thoughts and feelings associated with her pain throughout the day in a journal. Assignments are then reviewed in each session and used to plan new homework for the following week.

Table 1 Hierarchical list regarding the subject: "situations that I associate with my pain"

Situations	Level of Anxiety (0–10)	Avoidance
Noise	9	Yes
Crowds	9	Yes
Social interactions	8	Yes
Physical activities (e.g., dancing)	8	Yes

Table 2 Ms Y's self-report during CBT

Situation	Behavior	Emotion(s)	Beliefs
At the beginning of the therapy			
— Physical activities	Avoidance	Fear	"The pain is out of my control"
— Social interactions	Avoidance Isolation	Fear	"The pain will come back"
At the end of the therapy			
— Physical activities	Confrontation	Controllable anxiety	"I can control my pain"
— Social interactions	Confrontation	Controllable anxiety	"I must benefit from my friends' company"

At the end of the therapy, the level of activity as well as the pleasure taken in each new activity is substantially increased. Ms. Y is able to engage in various daily life activities like shopping, leisure, and social interactions. We can observe some modifications in the way she copes with stressful situations as well as her beliefs concerning her pain (Table 2).

This case report offers at least three lessons to consider when we have to treat someone with chronic pain: First, encourage a problem-solving attitude; second, involve the patient by giving him/her homework; third, foster life skills.

This CBT program has increased Ms. Y's understanding of her pain and her efforts to manage pain in a safe and adaptive manner. We have also worked on Ms. Y's outcome expectations, a very important element for the success of the treatment. Outcome expectations are core influences driving the positive changes attained. Thus, the management of chronic pain focuses on the power of patients' expectations for success. However, as underlined by some authors [6], too often, health care providers neglect to directly address and emphasize the importance of patients' expectations as integral factors contributing to successful management of chronic pain.

Finally, we have attained our objective, which was to give Ms. Y resources for coping with her pain. The aim of CBT interventions is not to eliminate pain but rather to help patients improve their coping strategies and develop self-efficacy toward pain in order to improve their quality of life. We have to insist on the fact that CBT is based on the multidimensional model of pain. Therefore, as pain does not include only psychosocial components but also physical and physiological ones, this approach for treating pain is not used alone and is always included in a multidisciplinary approach.

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References

1 Merskey H, Bogduk N, eds. Task Force on Taxonomy of the IASP Part III: Pain terms, a current list with definitions and notes on usage. In: Classification of Chronic Pain, 2nd edition. Seattle, WA: IASP Press; 1994:209–14.

2 Skinner BF. Science and Human Behavior. New York: Free Press; 1953.

3 Fordyce WE. Behavioural Methods for Chronic Pain and Illness. London, UK: The CV Mosby Company; 1976.

4 Morley S, Eccleston C, Williams A. Systematic review and meta-analysis of randomized controlled trials of cognitive behaviour therapy and behaviour therapy for chronic pain in adults, excluding headache. Pain 1999;80(1–2):1–13.

5 Eccleston C, Williams AC, Morley S. Psychological therapies for the management of chronic pain (excluding headache) in adults. Cochrane Database Syst Rev 2009;(2):CD007407.

6 Roditi D, Robinson ME. The role of psychological interventions in the management of patients with chronic pain. Psychol Res Behav Manage 2011;4:41–9.