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Case Report

Implementation of Hypnotherapy in Burn Pain Patients with Pain: A Case Report

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Abstracts

Introduction: Burn-related pain significantly impacts patients both physiologically and psychologically. Pain and associated psychosocial issues, such as anxiety and fear, can intensify the patient's suffering. Effective pain management for burn patients includes both pharmacological and non-pharmacological interventions. **Methods:** A patient diagnosed with severe burns (24% total body surface area, deep dermal/full-thickness) was treated in the intensive care unit of Dr. Soetomo Hospital, undergoing debridement on the chest and left arm. The patient reported severe pain (VAS 7) and anxiety (HAM-A 26). Anxiety, particularly related to anticipation of treatment, appeared to exacerbate pain perception. The therapist assessed the patient's understanding, beliefs, and expectations about their condition. Hypnotherapy was administered over five days, including pre-induction (assessing expectations), induction, relaxation, deepening, analgesic suggestion, and termination phases. **Results:** Following five sessions of hypnotherapy, the patient's pain score decreased from VAS 7 to 2, and anxiety level reduced from HAM-A 26 (severe) to 16 (mild). The patient also received intravenous metamizole (3×150 mg), ceftazidime (2×300 mg), oral fluoxetine (1×20 mg), and clobazam (1×5 mg) during hospitalization. **Conclusion:** Hypnotherapy proved to be an effective non-pharmacological intervention in reducing pain and anxiety in a burn patient. It can be integrated alongside conventional treatment in various clinical settings, offering a complementary approach for managing anxiety-related burn pain.

Keywords: Burns, Anxiety, Hypnotherapy

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INTRODUCTION

Burns are painful injuries and are often associated with a long and difficult recovery. Constant burn pain affects the physiological and psychological aspects of the patient. Pain caused by burns and some psychosocial problems can cause anxiety in patients. This anxiety can also increase the pain of burns. In reducing the intensity of burn pain, many pharmacological therapies are carried out, but due to concerns about the side effects of pharmacological treatment used, non-pharmacological therapy is needed to reduce the use of pharmacological treatment. Non-pharmacological therapy is currently in great demand and is developing in various aspects, including reducing acute or chronic pain in burn patients. This paper aims to analyze the effect of hypnotherapy on the intensity of acute pain in patients with burns.

Case Illustration

The examination begins with a 35-year-old male patient, a mechanical technician, lying in bed. The left chest is visible, the left arm is covered with an elastic bandage from the shoulder to the patient's palm, and the five fingertips of the patient's right hand are covered with gauze bandages. The patient visited the hospital with complaints of burns to the left chest, left waist, left arm, and right hand.

The patient was injured by the explosion of the generator engine, which hit the patient's left arm and all the fingertips of his right hand. The incident took place in an open space. Patients did not get complaints of hoarseness, shortness of breath, or soot in the nose and mouth. When he arrived at the hospital, the patient was cleaned and treated for burns. The patient said it was very painful when the patient's wound was cleaned. The patient was allowed to be an outpatient and went home. 2 days after receiving treatment, the patient's wound became severe; namely, the patient's wound became more painful and blistered and started to secrete fluid, so the patient took the initiative to go to the hospital to get further burn treatment.

The patient said he was worried and afraid when he heard that the patient was going to have a debridement done. The patient imagines how much pain the patient will feel if the wound is treated so that the patient feels a pounding chest, shaking hands, and sweating. The patient said the pain increased when the patient saw the wound being opened, and the patient saw the wound, so the patient looked away while the wound was being cleaned. Patients sometimes have a lot of negative thoughts at night; patients think a lot about the worst scenario about their illness, such as amputation if their complaints don't improve. The patient feels anxious and alone because when in the isolation room there is no one for the patient to talk to and exchange ideas with. The patient said that the illness he was experiencing at this time was a disaster because of the patient's own fault, who was negligent at work, so that in the future the patient must be more careful when working. The patient said that he had resigned and hoped that the wounds on his chest and hands would immediately receive treatment and heal.

The patient has never had any other serious physical illness and has never experienced a mental disorder before. The patient is a hard worker, quiet and introverted, often gives in to avoid conflicts with others, tends to think of small problems easily, and rarely shares problems with others because he doesn't want to be a burden.

According to the patient and family, what he is experiencing is a disaster that must be faced, even though it feels so hard for the patient; the patient believes there will be wisdom behind this incident.

METHODS

1. **Physical**

b. a. Examination of vital signs, namely conscious awareness, blood pressure 120/82 mmHg, pulse 82x/minute, respiratory rate 18x/minute, and temperature 36.2 degrees Celsius. Obtained deep dermal combustion

covering the left auricular region, thoracoabdominal region, thoracolumbar region, and left superior extremity region with a total of 24%. BMI: 19.05 kg/m³. From laboratory tests, it was found that there was a decrease in albumin (2.58) and Hb (10.6). Diagnosis: Combustio severe deep dermal full thickness 24% et causa fire.

c. b. The patient was given an injection of metamizole 3x150 mg intravenously and an injection of ceftazidin 2x300 mg intravenously. Patients are also subjected to regular debridement and wound dressings. In Medical Rehabilitation, proper anti-contracture positioning was carried out after burns to the extremities. The VAS score for pain assessment is 7.

2. Psychiatry

a. Psychiatric status obtained clear composmentis awareness, relevant fluent verbal contact, depressive mood/ affect, realistic thought form, coherent thought content, worry about the future, normal perception and will, and limited hypoactive psychomotor. The DASS-21 results show a stress score of 14 (mild), an anxiety score of 18 (severe), a depression score of 10 (mild depression), and a HAM-A score of 26 (severe). The patient is in the acceptance phase (Kubler-Ross), where the patient is able to accept the condition of his illness, but the patient is still anxious when the wound cleaning procedure is carried out.

b. Multiaxial diagnosis

- Axis I: Adjustment disorder characterized by a combination of anxiety and depression (F43.22)
- Axis II: avoidant anxiety personality traits
- Axis III: Severe degree of deep dermal full-thickness combustion of 24% et causa Api
- Axis IV: Problems with medical conditions and work problems
- Axis V: GAF scale hospitalized 50, best in the last 1 year 80.

c. The psychiatric treatment plan that is carried out is:

- Psycho-pharmacy fluoxetine 1 x 20 mg orally in the morning and clobazam 1 x 5 mg orally at night
- Hyponotherapy with emphasis on suggestions for anesthesia or analgesia directed at changes in sensation and perception of pain. This can be suggested as an increased perception of comfort or a decreased perception of pain. the goal is to achieve a feeling of well-being associated with numbness or a decrease in the sensation of pain and reduce anxiety.

3. Social

a. Assistance is carried out regarding counseling on future plans related to the patient's work and preparing alternative choices if the patient is terminated from his job. Helping patients to explore their own potentials which can later be used to become new jobs that are in accordance with the post-burn patient's condition.

b. Provide counseling to families regarding physical limitations that may arise in patients and help plan manipulation of the living environment if there is a post-burn contracture which results in a decrease in the patient's self-help ability.

4. Liaison

a. Communicating with the field of plastic surgery regarding the patient's psychological condition and the possibility of experiencing adjustment disorder with a mixed reaction of anxiety and depression because the patient's medical condition requires long-term care and the treatment measures taken make the patient anxious and pain increases when the patient is anxious so it is necessary to optimize pain therapy and providing more complete education so that patients can understand the procedure to be undertaken so that patients are calmer because they understand the actions to be performed.

b. Communicate with the fields of plastic

surgery, medical rehabilitation and internal medicine who also treat patients about plans, actions that have been taken and constraints related to the patient's psychological condition.

RESULTS

Physical aspect

For the initial stage in this patient, debridement and wound dressing were performed. The patient has been debrided 2 times with good wound healing, and the wound dries quickly. Medical rehabilitation treatment has been carried out to prevent contractures and has been carried out routinely to reduce the level of stiffness of the distal extremities. For conditions of pain in the arms and chest, with pain treatment and hypnotherapy carried out for 5 days during the nurse's period, the pain scale has been reduced. The visual analog scale (VAS) on the first day of hypertherapy was 7, and the VAS became 2 after being given 5 days of hypertherapy. Medical rehabilitation treatment to prevent contractures has been carried out routinely to reduce the level of distal extremity stiffness.

Psychological aspect

The therapist identifies knowledge about the condition along with expectations and beliefs/values believed by the patient. The patient understands that his condition is severe enough to require intensive care and referral to Dr. Soetomo Hospital. In the beginning, patients can accept their illness and think of it as a disaster that can happen to anyone. The patient is sad and worried that he won't be able to work again because his hand condition hasn't improved. Psychosocial assistance begins with establishing a good rapport. Cooperative patients and families support care, and families always provide motivation. Patients feel calmer after doing relaxation techniques when pain or anxiety appears. The patient has performed hypnotherapy techniques for additional therapy to reduce anxiety and pain in patients. The patient has been subjected to 5 hypnotherapy techniques by providing anesthetic or analgesia suggestions aimed at changing the sensation and perception of pain with the aim of reducing pain sensation. In addition to reducing pain, the hypnotherapy given gave results, namely reducing anxiety when wound care was about to be carried out and reducing patient pain.

Further psychotherapy is carried out if the acute phase has passed and the patient cannot accept his condition. After being given supportive psychotherapy, the patient feels calmer, begins to accept his situation, and becomes more enthusiastic about undergoing therapy sessions. Psychopharmacology was given because there were significant psychopathological symptoms, namely a mixture of anxiety and depression.

Protocol for Hypnotherapy Patients:

Pre-Induction

Prior to initiating hypnotherapy, a concise interview is conducted regarding the patient's aspirations, the childhood nickname used by their parents, and the most tranquil location that evokes a sense of serenity, such as beaches, mountains, or parks.

Induction

Instruct the patient to recline with a straight back on the bed, with feet and knees aligned together and hands positioned beside the body or above the thighs, palms facing upward. The eyes fixate on the hypnoscope point ahead without blinking. Should the eyes exhibit signs of restlessness and fatigue, the patient is instructed to close their eyes and disregard all external concerns beyond this room.

Repose

The method for alleviating pain intensity entails augmenting the sensation of relaxation. The therapist can facilitate the relaxation response through suggestions. Relaxation objectives originate in a certain region of the body and propagate throughout the entire physique."Inhale deeply, then retain the breath for up to six counts in silence... exhale (repeat approximately eight times)."“Numerous other voices exist, yet I urge you to heed and consider

mine" "Envision that Mr. T is presently on the beach, able to repose in a tranquil and leisurely manner." Experience the refreshing ambiance; the breeze wafts softly amidst a tranquil vista. A sensation of tranquility, ease, relaxation, and serenity. "Perceive the relaxation of the toe muscles, Mr. T; observe the calf muscles loosening, the thigh muscles easing, the abdominal muscles unwinding, the chest muscles softening, and the modulation of your breathing and heart rate. commenced consistently and at a reduced pace compared to prior efforts. Mr. T is beginning to experience drowsiness.

Intensification

Now perceive the musculature in Mr. T's fingers beginning to unwind, your arm musculature commencing to ease, and all your muscles initiating relaxation. Your eyelids seem increasingly weighty, and your eyes are becoming progressively more-drowsy. Her lethargy, now exponentially more profound than previously, increasingly intensified—twentyfold more lethargic than before, progressively deepening until it reached a hundredfold depth compared to earlier. Once the person appears at ease, isolate and do another test.

Once more, focus and heed my voice... Mr. T is currently so fatigued that his eyelids are difficult to lift. I am decrementing from five to zero. Upon reaching zero, you attain total rest.

Your thinking is exceedingly tranquil.

Four exceedingly drowsy eyes.

My eyes feel exceedingly heavy.2. …you experience profound relaxation...Your entire body becomes relaxed.

You achieve a condition of total relaxation. Mr. T is currently unable to open his eyes despite his desire to do so; the more he attempts to open them, the sleepier he becomes. If the patient is in a state of hypnosis, it will be challenging for him to open his eyes. (subsequently commences inputting suggested terms for the patient.)

Recommendation for Anesthesia/Analgesia

Anesthesia and Analgesia

The objective of hypnosis in pain management is to diminish the severity of pain. Recommendations for anesthesia or analgesia aim to alter the experience and perception of pain. This impact may be characterized by an enhanced impression of comfort or a diminished perception of pain. The objective is to attain a sensation of comfort linked to numbness or diminished pain perception."As Mr. T inhales, one perceives that all regions of your burn become cold, numb, and soothing." You begin to sense drowsiness and subsequently go into slumber, feeling more at ease than prior. (reiterated 7 to 10 times) "From this moment forward, Mr. T transformed into a serene and content individual."

Termination

It is now time to conclude this exercise; I will count to four. Upon the count of four, Mr. T will awaken devoid of agony and with a rejuvenated and clearer mind than previously.

Gradually open your eyes, allowing your organs to resume regular operation, free from pain, while energy replenishes your muscles.

Two—articulate your toes and fingers; perceive the normalization of all blood vessels and nerves.

Three — rotate your head to the right and then to the left, while experiencing the normalization of your digestive system and bodily functions.

Four completed. Kindly awaken with an improved and more robust physical state than previously.VAS and HAM-A assessments were conducted before and after hypnosis.

Hypnotherapy	VAS score Pre-Hypnotherapy	HAM-A score Pre-Hypnotherapy	VAS score Post-Hypnotherapy	HAM-A score Post-Hypnotherapy
Day 1	7	26	5	26
Day 2	6	24	4	20
Day 3	4	20	2	18
Day 4	2	18	2	18
Day 5	2	18	2	18

a. social aspect

The patient has been hospitalized for eight days and has undergone treatment for his injuries; however, he now experiences a mild impairment that may impede his work. The patient resumes work as a technician, engaging in a diverse array of electronic equipment tasks, and establishes a home-based business to generate income from this profession. Robust familial support during the treatment phase assists patients in navigating challenging periods. Patients demonstrate an increased capacity to acknowledge their physical limitations and have successfully adapted to their situations.

b. Aspects of liaison (teamwork)

- Communication within the domain of plastic surgery to enhance the management of patient pain and anxiety. Comprehending the patient's fear and grievances regarding pain facilitates TS plastic surgery in enhancing burn care, particularly alleviating discomfort, and instilling a sense of serenity and confidence in the supplied treatment.
- Engaging with the medical rehabilitation sector regarding the significance of instructing patients on the risks of contractures in their arms and the measures implemented to mitigate these risks. Additionally, addressing the patient's preferences and apprehensions concerning diminished physical function enables the therapeutic specialist in the medical rehabilitation field to concentrate on limb exercises that optimize existing functionality and enhance impaired function. Consequently, the patient becomes more cooperative and supportive in their exercise regimen, as they comprehend the objectives and benefits of the prescribed activities.

DISCUSSIONS

Pain is characterized by the International Association for the Study of Pain (IASP) as "an unpleasant sensory and emotional experience linked to actual or potential tissue damage, or articulated in relation to such damage"[1]. Pain constitutes a multifaceted biopsychosocial phenomenon, and psychological suffering is prevalent among several burn victims [2], [3]. Globally, burns have ranked among the foremost causes of mortality and disability for numerous years. The prevalence is significantly greater in underdeveloped nations, where open home fires are more prevalent than in wealthy countries. A significantly greater number of men than women are subjected to burns, with children and the elderly constituting additional vulnerable demographics [4].

Burns are undoubtedly a traumatic occurrence, particularly when they result in lasting disability [5]. Individuals with burn injuries may have psychological difficulties. Although most individuals do not have severe clinical symptoms, the recollection of burn incidents is recurrent, potentially impacting the attention and memory functions of burn victims [6]. A complication of burns is the development of illogical beliefs, which are primary predictors of psychological issues, including anxiety, despair, shame, guilt, and post-traumatic stress disorder. Anxiety in burn patients arises from multiple sources, including apprehension before the operation and concerns about their physical disabilities [7].

Patients will experience painful daily wound cleansing and debridement operations during hospitalization, and the majority will additionally necessitate excision and split-thickness autograft [8], [9]. Hospitalization and several surgeries may result in psychiatric illnesses that are more prevalent than in other populations [7]. The incidence of psychiatric issues among burn patients varies between 18% and 36% [5].

Patients with chronic burn injuries require insight into their agony, but comprehension from their experiential standpoint remains insufficient. The deficiency in knowledge arises from insufficient education regarding pain management for burn patients, resulting in unmet desires and demands [2]. Fear and avoidance are responses associated with pain; hence, the impairment linked to the sensation of desiring elicits a reaction akin to that of worry [10]. This may result in skewed assessments of their discomfort, therefore increasing dread and anxiety associated with it [11]. The negative interpretation bias leads to a propensity for negative or threatening judgments on pain. Negative interpretation bias may develop from previous catastrophic pain linked to recent pain experiences, potentially leading to anxiety [12].

Pain is often addressed through two distinct methodologies: pharmacological and non-pharmacological [13]. Burns may induce discomfort, anxiety, and pruritus. During the acute treatment phase, pain, anxiety, and pruritus might mutually intensify, leading to an augmented inflammatory response, diminished treatment adherence, and an extended recovery period. Analgesic medications are commonly used to alleviate pain; however, they are linked to undesirable side effects, including drowsiness, dependency, and adverse effects on other bodily organs. Alternative medicine is necessary, and hypnotherapy is one such treatment for pain [14]. Hypnotherapy can alleviate pain, anxiety, and worry while expediting the healing of burn wounds [15]. Hypnotherapy is a non-pharmacological approach for pain management. Psychological factors, such as maladaptive cognitions (e.g., catastrophizing, fear of pain) and unpleasant emotions, can intensify pain perception through cortico-limbic brain circuits [16], [17]. Hypnotherapy constitutes a modality of hypnotic treatment. Hypnosis is a mental state elicited through a process termed hypnotic induction, typically involving an extensive initial sequence of instructions and suggestions [18]. The proposed solution involved a 15-minute self-hypnosis session in which the patient was instructed to elevate their gaze, close their eyes, engage in deep breathing, concentrate on the sense of buoyancy, and envision visual, auditory, olfactory, and tactile stimuli. specifics of the enjoyable sequences they selected. Hypnotherapy recommendations facilitate the transformation of pain into sensations of warmth, coolness, or tingling.

A study examined self-hypnosis, yoga, and cognitive behavioral therapy for the reduction of emotional distress. The results indicated that post-intervention, the CBT group had no significant benefit, whereas the yoga and self-hypnosis groups showed a substantial favorable impact on stress, along with enhancements in quality of life, sleep, and mental adjustment [19], [20]. This supports the notion that hypnotherapy is appropriate for people with burns to alleviate pain and psychological issues [13]. The analgesic suggestion is envisioning the departure of pain from the body, hence inhibiting the perception of nociceptive stimuli [21]. Hypnotic analgesia is frequently administered for its pharmacological importance and local anesthetic properties [22].

CONCLUSIONS

Psychiatric support has been provided to adult male patients with severe deep cutaneous full-thickness burns covering 24% of the body, attributed to Api. The patient expresses concern over pain from prior treatment experiences. The patient's

cognitive distortion about pain perception leads to an exacerbation of pain levels. Hypnotherapy is an appropriate non-pharmacological treatment for patients, since it can induce a state of calmness and alleviate discomfort. The patient's VAS pain score diminished from 7 to 2, and the HAM-A anxiety score decreased from 26 (severe) to 18 (moderate) following the administration of hypnotherapy during the treatment period.

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CONFLICT OF INTEREST

Nil

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