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Short review

Controlled outcome studies of child clinical hypnosis

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Abstract. *Background:* Hypnosis is defined as "as an interaction in which the hypnotist uses suggested scenarios ("suggestions") to encourage a person's focus of attention to shift towards inner experiences". *Aim of the work:* The focus of this review is to summarize the findings of controlled outcome studies investigating the potential of clinical hypnosis in pediatric populations. We will examine the following themes: anesthesia, acute and chronic pain, chemotherapy-related distress, along with other specific medical issues. *Results:* Hypnosis is an effective method to reduce pain and anxiety before, during and after the administration of anesthetics, during local dental treatments, invasive medical procedures and in burn children. Hypnosis can be successfully used to manage recurrent headaches, abdominal pain, irritable bowel syndrome and chemotherapy-related distress. Hypnosis has an important role in managing symptoms and improving the quality of life of children suffering from asthma and cystic fibrosis and in facilitating the treatment of insomnia in school-age children. Finally, hypnosis can be effectively used for the treatment of some habitual disorders such as nocturnal enuresis and dermatologic conditions, including atopic dermatitis and chronic eczema. *Conclusions:* Clinical hypnosis seems to be a useful, cheap and side-effects free tool to manage fear, pain and several kinds of stressful experiences in pediatric populations. Children who receive self-hypnosis trainings achieve significantly greater improvements in their physical health, quality of life, and self-esteem. (www.actabiomedica.it)

Key words: clinical hypnosis, pediatric hypnosis, children anesthesia and acute pain, chronic pain, chemotherapy related distress

Introduction

Hypnosis is defined as "as an interaction in which the hypnotist uses suggested scenarios ("suggestions") to encourage a person's focus of attention to shift towards inner experiences."(1)

Even if the trance state closely resembles meditative states, hypnotherapy differs from meditation because it employs therapeutic suggestions that allow patients to access latent resources in order to better address personal challenges or psychological issues.

Research has demonstrated that hypnosis can modulate physiological processes previously considered inaccessible to voluntary control. These effects include blood loss reduction during dental surgery with hemophiliac patients (2) and changes in the heart rate of children (3).

The potential of hypnosis in children has been investigated in several areas: anesthesia, acute and chronic pain, chemotherapy-related emesis and nausea, emotional and behavioral dysregulation, learning disabilities and other general medical issues.

Remarkably, despite the explosion of sophisticated treatment outcome researches over the past 20 years, controlled studies involving hypnosis for the management of children's emotional or behavioral problems are still limited.

Objective

The focus of this review is to summarize the findings of controlled outcome studies investigating the potential of clinical hypnosis in pediatric populations.

Since, the majority of existing research addresses anesthesia, acute and chronic pain, distress of chemotherapy and some other specific medical issues, we chose to focus on these areas.

Results

Anesthesia and acute pain

Previous papers (4-7) and recent meta-reviews (8,9) support the effectiveness of hypnosis in the management of pain. This kind of evidence led the American Pain Society to consider hypnosis as a recommended treatment option for children suffering from acute pain (10, 11).

A recent review of the literature on clinical hypnosis in pediatric anesthesia shows that hypnosis is effective as an adjunctive treatment to reduce and control pain and in minimizing anticipatory anxiety before, during and after the administration of anesthetic drugs (12). Patients under hypnotic treatment report less anxiety, need shorter hospital stays and experience less long-term pain and discomfort compared to patients in control conditions (13). This result can be achieved by including hypnosis in pre-surgical consultations to establish cooperation, to plan strategies in order to enhance comfort, to address fears and to provide suggestions for rapid recovery and self-efficacy enhancement (14).

Hypnosis was successfully used in forearm fracture reductions with children who had no possible access to any other analgesic method during the procedure (15).

Hypnosis is an effective method to alleviate pain and anxiety in burn patients (16) and during invasive and painful medical procedures (17, 18) such as bone marrow aspirations and lumbar punctures.

Dental anesthesia often provokes anxious responses related to the fear of needles or of other distressing instruments. A prospective study suggested that hypnosis is an effective method to reduce anxiety and pain associated with local dental anesthesia and dental treatments (19).

Chronic pain

In a recent study, hypnosis was successfully used to alleviate recurrent headaches.

A cohort of 144 children and adolescents with chronic recurrent headaches who were trained in self-hypnosis, reported statistically significant reductions in frequency, intensity, and duration of headaches compared to their condition before training. A long-term follow-up of the same cohort of patients, who successfully applied self-hypnosis, showed, through self-reports, that patients improved both on headache control and on the management of other challenging and stressful personal situations (20).

A recent randomized controlled study conducted on 52 pediatric patients compared hypnosis and standard medical treatment for abdominal pain and irritable bowel syndrome. Results showed a significant difference between the two groups. Furthermore, two-thirds of the subjects trained in self-hypnosis were still in remission 5 years after treatment (21).

Chemotherapy-related distress

Imagination-focused hypnosis was originally developed to help managing chemotherapy-related symptoms such as nausea and vomiting.

Later studies showed that children who applied self-hypnosis to treat such symptoms, used significantly less antiemetic medications compared to controls (22, 23).

General medical issues

Several clinical reports have also consistently documented the clinical effectiveness of hypnosis in managing symptoms and improving quality of life in a population of children suffering from asthma and cystic fibrosis.

In an interesting study, a group of children with cystic fibrosis was trained in self-hypnosis while an-

other one served as control condition. All participants completed baseline self-report measures of locus of control, health-related locus of control, self-esteem, anxiety, as well as peak expiratory flow rate. Results showed that, compared to the control group, the treatment group achieved significantly greater improvements in peak expiratory flow rate, as well as self-esteem, state anxiety, health, and locus of control (24).

The use of hypnosis appears to facilitate efficient therapy for insomnia in school-age children. A retrospective chart review was performed involving data from 84 children and adolescents with insomnia, excluding those with central or obstructive sleep apnea. All patients received a self-hypnosis training aimed to the treatment of insomnia and other symptoms when these were considered amenable to hypnotic therapy. Two or fewer hypnosis sessions were sufficient for 68% of patients.

Younger children were more likely to report that insomnia was related to fears. Of the 70 patients who reported a delay in sleep onset greater than 30 minutes, 90% reported a reduction in sleep onset time following hypnosis. Of the 21 patients reporting nocturnal awakenings more than once a week, 52% solved the problem and 38% reported improvement.

Somatic complaints amenable to hypnosis were reported by 41% of the sample, including chest pain, dyspnea, functional abdominal pain, habit cough, headaches, and vocal cord dysfunctions. Interestingly, among those patients, 87% reported improvement or resolution of such complaints after hypnotic treatments (25).

Finally, case studies report that hypnosis can be successfully used for the treatment of habitual disorders such as nocturnal enuresis (26), dermatologic conditions including atopic dermatitis, (27) and chronic eczema (28).

Conclusions

Clinical hypnosis in pediatrics seems to be a useful, economic and side effects-free tool to reduce pain related to illnesses or medical procedures, and to manage several stressful or frightful experiences in children. Evidence also suggests that this technique can lead to the improvement or resolution of certain conditions.

Children are intensely involved in their hypnotic therapy because it is managed by themselves, using their attitudes and abilities through self-hypnosis. Even very young children can learn specific techniques for their own benefit, achieving remarkable improvements in their health, quality of life, and self-esteem.

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