

Using self-hypnosis to improve medical compliance: The role of mind body modalities

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Received date: May 16, 2020
Accepted date: June 08, 2020

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Introduction

Integrative medicine is the new kid on the block who is here to stay. Like the new kid at recess, integrative medicine has been met by some with open arms and eagerness for introductions by some, yet frank skepticism of differences by others. Patients and providers who have embraced the field of integrative medicine have benefited from the additional skill sets and training including but not limited to in-depth nutritional assessments and counseling, mind-body medicine, evidence-based supplement prescriptions, acupuncture and emotional/spiritual aspects of lifestyle and treatment planning. At Stanford Children's Hospital the most common referral patterns for integrative medical services are (1) Optimization of ongoing medical care with additional resources and tools. (2) Patient request for a holistic or more natural approach to their care. The case and discussion below will use excerpts from an office visit to highlight the effectiveness of hypnosis as a mind-body modality that was successfully integrated into a patient's treatment plan to improve medication compliance.

Critical Excerpts

Chief complaint

Pain and needle phobia

History of present illness

AB is a 9-year-old female with a diagnosis of juvenile idiopathic arthritis (JIA) for 4 years which had been well controlled on Enbrel. Given that patient AB was doing well for some time her parents did a trial stopping Enbrel for 4 months. During this time there was an increase in pain and swelling of her joints, most noticeably her hands which would interfere with games she liked to play at recess. Given her increase in symptoms her parents restarted her medication two weeks ago and they notice an improvement in her symptoms. Now she is complaining of distress prior to getting the shot because she is fearful of the pain. Her mother notes that this anxiety is also affecting her sleep.

Current and past therapies

- Medications: previously on methotrexate, continues to take Aleve prn.
- Supplements: CBD oil in a dose 30:1 concentration and gives one drop as needed. She gets it 1-2 times per week most commonly to help with anxiety around the shots.
- Nutrition: Cooking with turmeric, incorporating more fish with omega-3 such as salmon. Family has enjoyed the change in their culinary habits and eating food at home. They are eager to learn more.
- Physical therapy/occupational therapy have both been of benefit in the past.
- Pain psychology She had one visit she benefited from and would like to return given her new concern about the shots

Citation: Gerstbacher D, Satnick A. Using self-hypnosis to improve medical compliance: The role of mind body modalities. Curr Rheumatol Res 2020; 1(1):3-5.

- Acupuncture she has used in the past
- Sleep hygiene requesting to review
- Exercise routines have helped.

Physical exam

Well appearing girl appearing her stated age. Energetic and enthusiastically discusses her day. Notable for mild swelling of metacarpal joint of digit 3 and 4 of the left hand. No erythema or warmth. Full range of motion of wrists, elbow, hips with preserved extremity strength.

Laboratory workup

Notable for a mild elevation in her Erythrocyte Sedimentation Rate (ESR).

Assessment and plan

9y female with JIA whose symptoms had been well controlled on Enbrel and is now experiencing increased symptoms due to medication noncompliance and anticipatory distress focused on the administration of Enbrel. Based on AB's chief complaint, today's visit focused on a self-hypnosis technique called magic glove. Given her family's readiness for change the components of the anti-inflammatory diet were also discussed in further details. Referrals were placed for physical therapy to get her back into an exercise routine and psychology to provide mental health support.

Discussion

AB's chief complaint was pre-procedural distress. The Committee on Psychosocial Aspects of Child and Family Health and Task Force on Pain in Infants, Children, and Adolescents address the importance of a patient-centered, multimodal approach to treat acute pain, including pre-procedural distress because it heightens the pain response [1,2]. It is not uncommon for patients to dislike needles and a majority of children have been observed to experience high levels of distress in anticipation of venipuncture [3]. As exemplified by pertinent AB, this distress is heightened by the anticipatory reflex from previous experience. If left untreated, needle phobia, present in 10% of the population, may contribute to medical avoidance and poor patient outcomes [4].

In this example, "magic glove" served as an example of a hypnosis technique that has been studied in the pediatric population and shown to reduce anxiety prior to medical procedures [5]. During the visit, hypnotic suggestions were modified in such a way to reduce AB's anticipatory distress of receiving her medication. AB was shocked when she experienced the effectiveness of this intervention; and her parents said, *"this has been the most helpful thing by far."* In this example, a simple hypnosis technique greatly improved our patient's compliance with an effective conventional treatment.

Hypnosis is one of many techniques that fall under the category of mind body medicine that has a shown benefit for children experiencing acute or chronic pain, headaches, functional and abdominal pain [6–8]. It has also been used for in school-aged children who have asthma and sleep disturbances [9,10]. Additional mind body practices include biofeedback, meditation, mindfulness, guided imagery, yoga, tai chi, progressive muscle relaxation and music therapy.

These practices promote a state of relaxation and are helpful tools when stress is an amplifier of experienced symptoms [11]. Mind-body modalities are receiving more recognition within the scientific and medical communities as studies can be designed to show changes in biological structure and function [12-20].

Beyond the laboratory, mind-body modalities have been shown to be beneficial on a clinical level with improvement in patient symptoms. Mindfulness practices, which promote a non-judgmental awareness in the present moment, have recently been popularized and are accepted as effective therapies within a clinical practice [21,22]. Biofeedback, a process of electrically monitoring an automatic bodily function is used to train someone to acquire voluntary control of that function, has shown to be of benefit as adjuvant therapy for relief of symptoms in adults and older children who suffer from migraine and tension type headaches, and pediatric patients who have dysfunctional voiding, encopresis, functional dyspepsia, and reduced vagal tone measured as heart rate variability [23-28]. In 2005, thirty-eight of forty-three or 86% of pediatric anesthesia training programs accredited by the Accreditation Council for Graduate Medical Education in the United States have stated they provide training in at least one or more of these therapies [29].

Conclusion

This case of AB with medical noncompliance due to anticipatory distress and needle phobia was easily solved with a self-hypnosis technique that could be taught in an office visit. In this case, mentioned, but not discussed was how patient AB used a full spectrum of available lifestyle and medication treatments to prevent disease progression. By connecting with what is most important to her, playing at recess, she became motivated to take control of her health. As integrative physicians, we were there ready and skilled with the knowledge and tools to share so she can live a joyful and healthy life. United Nations Development Programme (UNDP) and Helen Keller International [17] showed that prevalence of underweight among under-5 children was over 30%, and more than 7% of these children exhibited signs of severe malnutrition in Chittagong Hill Tracts. They also predict that if this livelihood and food insecurity continue or worsen with seasonal fluctuations, moderately undernourished children and mothers can fall into categories of more severe malnutrition. But no inferential statistics were used which results concrete association between variables was absent.

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