Hypnosis to Manage Anxiety and Pain Associated with Colonoscopy

Gary Elkins, PhD

Abstract

Hypnosis is a mind-body intervention that has been used to manage pain and anxiety with reduced sedation during medical procedures. In a clinical study six patients received a hypnotic induction and instruction in self-hypnosis on the day of their colonoscopy. Patients’ levels of anxiety, pain, and satisfaction were obtained using Visual Analogue Scales (VAS). Results revealed most of the patients experienced very minimal anxiety and pain during colonoscopy, and satisfaction with hypnosis was very positive. The techniques of self-hypnosis for relaxation can be easily learned by patients and has the potential to decrease the requirement for sedation during colonoscopy.

Narrative

The learning objectives of this presentation are to discuss a hypnosis protocol for pain and anxiety during colonoscopy and identify directions for future research. Hypnosis is a mind-body intervention that may be of benefit in reducing patient anxiety and discomfort during colonoscopy. Hypnosis involves a focus of attention, inducing a deeply relaxed state and mental imagery combined with therapeutic suggestions. Hypnosis for pain and distress has been well-described in the literature. For example, a number of articles have dealt with hypnosis in the setting of chronic pain, in the performance of excisional breast biopsy, and invasive radiological procedures.

In a clinical pilot study of hypnotic relaxation for colonoscopy, six patients scheduled for colonoscopy for colorectal cancer screening were evaluated. The patients were referred from family practice, five male and one female. Their ages ranged from 53-68 years; mean age was 58 years (SD = 6.2 years). There were five Caucasians and one African-American. Anxiety was assessed by the Visual Analog Scale (from not anxious at all to as anxious as I could be) pre- and post-hypnosis and during procedure. Pain was assessed by the Visual Analog Scale (from no pain at all to as much pain as I could have) during colonoscopy. Satisfaction was assessed by the Visual Analog Scale (completely unsatisfied to completely satisfied). Hypnotic ability was assessed by the Stanford Hypnotic Susceptibility Scale – Form C. The standard care comparison group included 10 patients. Measures recorded included colonoscopy procedure time, recovery time, and vasovagal events.

Patients receiving the hypnosis intervention arrived approximately one hour before their appointment for colonoscopy and completed demographic questionnaires and the baseline measures of anxiety. The patients then participated in a standardized hypnotic induction provided by a psychologist trained in hypnosis. The hypnotic induction followed a transcript that lasted approximately 20 minutes. It included suggestions for relaxation, suggestions to deepen the relaxed state, suggestions to imagine (dissociate to) a “special place,” instructions for how to use self-hypnosis, and for feelings of control. In addition, suggestions for control of pain and anxiety (e.g., you will feel very little pain; most of the pain will be under control most of the time; and very little anxiety; you will feel calm and relaxed; you will notice a peaceful feeling and perhaps a numbness) were provided. Patients receiving hypnosis were then provided with an audio-cassette tape player, a tape recording of a hypnotic induction for relaxation, and instructions in the use of the tape recording for hypnosis during their colonoscopy.

Results indicated a reduction in anxiety post-hypnosis and during colonoscopy. Figure 1 shows the pre- and post-hypnosis Visual Analog Scale Anxiety Ratings for all the patients. Aver-
Hypnosis to Manage Anxiety and Pain Associated with Colonoscopy

Age pre-hypnosis anxiety was 3.8 (SD = 2.62), average post-hypnosis anxiety was 0.50 (SD = 0.37), and average anxiety during colonoscopy was 2.50 (SD = 2.81). Corresponding to this, the average pre-hypnosis pain was 1.38 (SD = 2.53), average post-hypnosis pain was 0.18 (SD = 0.25), and average pain during colonoscopy was 2.47 (SD = 3.05). Stanford Hypnotizability Scale – Form C score average was 7.17 (SD = 3.49). Figure 2 shows there is no significant difference in the length of colonoscopy procedure time in the group receiving hypnosis and the group receiving standard care. Figure 3 shows that the recovery time following colonoscopy was shorter for the hypnosis intervention group. Figure 4 shows that the number of vasovagal events was fewer for the hypnosis intervention group. All of these patients began colonoscopy without sedation and completed the examination without sedation, although they all knew that they could have access to sedation medications should they need them.

Results provide persuasive evidence for the potential of hypnosis management of anxiety and pain during colonoscopy. For example, one of the participants in this study was a 63-year-old Caucasian male that was referred for colonoscopy for colorectal cancer screening. The patient was diabetic and was allowed fluids during preparation. Procedure time was ten minutes as no mucosal abnormalities were detected other than scattered left-sided diverticulae. The patient rated his anxiety as 7.9 before hypnosis and 0.9 after the hypnotic induction. Anxiety rating during colonoscopy was 0.9. Pain rating during colonoscopy was 0.7. The patient rated effectiveness of self-hypnosis in controlling anxiety and pain during colonoscopy as 9.2 and 9.2 respectively. Satisfaction with medical care was rated as 9.3 on a 0-10 scale.

The directions for future clinical research include setting up the standard transcript and its integration into clinical care. A multi-site study is desirable for determination of the requirements of training of medical teams, ratings of patient satisfaction, and cost-benefit analysis.

**Acknowledgements**

Supported in part by NCCAM grant 5U01AT004634 and NCI grant R21CA131795 to Dr. Elkins.

Gary Elkins, PhD, ABPP, is Professor and Director, Mind-Body Medicine Research Laboratory, Department of Psychology and Neuroscience, at Baylor University.

Potential Financial Conflicts of Interest: By AJCM® policy, all authors are required to disclose any and all commercial, financial, and other relationships in any way related to the subject of this article that might create any potential conflict of interest. The author has stated that no such relationships exist.

**References**


