

# Hypnotic Suggestibility, Psychopathology, and Treatment Outcome

Steven Jay Lynn, Ph.D., Kelley Shindler, M.S., and Eric Meyer, M.S.

This article examines the association between hypnotic suggestibility and treatment outcome in the context of various psychological and medical conditions including hypnotic analgesia, smoking cessation, post-traumatic stress disorder, dissociation, asthma, wart remission, eating disorders, obesity, somatization, and psychosis. In no case was high hypnotic suggestibility associated with negative treatment outcome, and in the case of pain management, hypnotic suggestibility has been shown to optimize treatment outcomes. Disorders in which findings regarding the link between suggestibility and treatment outcome are mixed yet promising include smoking cessation, obesity, wart remission, anxiety, somatization, and asthma. Methodological issues and potential mediators of the association between suggestibility and treatment outcome are discussed.

**(Sleep and Hypnosis 2003;5(1):17-25)**

**Key words:** *hypnosis, psychopathology, psychotherapy, suggestibility, and hypnotizability*

## INTRODUCTION

One of the most robust findings in the literature on hypnotic suggestibility is that there are large individual differences in the extent to which people respond to imaginative suggestions. Although approximately 15-20 percent of people respond to very few suggestions, a comparable percentage of individuals respond to an array of suggestions for changes in sensation, perception, cognition, and action (1). Many highly suggestible individuals are able to experience involuntary

or automatic movements, vivid hallucinations, age regression, anaesthesias, compulsive post-hypnotic behavior, and amnesia in response to suggestions.

Observations of the dramatic effects of hypnosis led early investigators, including Charcot and Janet, to the mistaken conclusion that hypnosis was a pathological condition, while the therapeutic potential of hypnosis was recognized by Breuer, who used hypnosis to explore the psychological dynamics of conversion disorder (2). The idea that there is a link between hypnotic suggestibility and psychopathology (and medical conditions), and that suggestibility is associated with the ability to benefit from hypnotic procedures is very much alive today. In this article, we examine the link between hypnotic suggestibility and treatment outcome associated with a variety of

From the Psychology Department State University of New York at Binghamton, NY, USA

Address reprint requests to: Dr. Steven Jay Lynn, Psychology Department, State University of New York at Binghamton Binghamton, NY 13902, USA

This article is a revised and abbreviated version of a chapter that will appear in D. Oakley, M. Heap, and R. Brown (Eds.), *The high susceptible hypnotic subject*. London: Brunner-Routledge.

Accepted November 27, 2002

psychological disorders and medical conditions.

## **HYPNOTIC SUGGESTIBILITY AND PSYCHOPATHOLOGY**

It is clinically useful to understand whether hypnotic suggestibility is related to treatment outcome in relation to a given disorder (see 1,3-7). For example, if individuals in a particular diagnostic group are especially responsive to hypnotic interventions, then it would make good sense to either define procedures as being "hypnotic" in nature or to add a hypnotic component to a given treatment protocol. Under these circumstances, the inclusion of hypnosis as an adjunctive procedure might be expected to optimize treatment gains (8). In contrast, if a person were immune to the effects of hypnotic suggestions, there would appear to be little justification for incorporating hypnosis into treatment.

Unfortunately, the attempt to correlate psychopathology and hypnotic suggestibility has proven elusive. Early investigators including Janet and Charcot believed that hypnotic suggestibility and psychopathology were linked, and this idea, propelled by the influence of these individuals, carried over to the 20th century. However, studies specifically designed to investigate the connection between hypnotic suggestibility and a wide range of traits or characteristics including neuroticism, repression, and symptoms measured by diverse MMPI scales generally yielded negative findings and no consistent or reliable correlates of suggestibility (9). Brown's (10) review concluded that attempts to predict hypnotic suggestibility without actually attempting hypnosis by way of knowledge of patients' diagnoses and other factors including gender, introversion/extroversion, social status, ethnicity, and intelligence, were likewise unsuccessful. By the mid-1960's, research regarding potential relationships between various forms of psychopathology and hypnotic

responding yielded such inconsistent results that this line of inquiry gave way to research involving more "positive" (e.g., sociability and emotional stability) personality variables (9). Due to the fact that studies of positive personality traits were vexingly inconsistent, researchers began to focus on cognitive variables (e.g., imaginative ability, absorption) and secured more promising albeit inconclusive results (9,11).

Despite these dour assessments, a good deal has been learned about the links among hypnotic suggestibility, treatment outcome, and various psychological and medical conditions, even if the findings are far from conclusive. In the discussion that follows, we review disorders that are either commonly treated with hypnosis, or that have garnered attention because of their association, or lack thereof, with particular symptoms, hypnotic suggestibility, and treatment outcome.

## **SMOKING CESSATION**

Green and Lynn's (12) recent review of the literature on smoking cessation concluded that hypnosis is a promising and cost-effective smoking cessation technique. However, they note that the picture that emerges with respect to hypnotic suggestibility and treatment outcome is mixed. Whereas five studies have documented a relation between hypnotic suggestibility and abstinence, twelve studies have failed to do so (see also 13). Interestingly, all of the studies that measured hypnotic suggestibility after treatment found no correlation between suggestibility and outcome. Schoenberger et al. (14) contends that post-treatment measurement of hypnotic suggestibility is preferable to pre-treatment assessment in order to minimize contamination of treatment data.

## **HYPNOTIC ANALGESIA**

Recently, Montgomery and his colleagues

(15) performed a meta-analysis on 18 studies (N participants > 900) of hypnoanalgesia. The investigators determined that hypnosis provided substantial pain relief for three-quarters of the population. An important finding was that the magnitude of pain reduction was greater for the highly suggestible versus the low suggestible participants. However, the effect sizes observed were comparable for highly suggestible and medium suggestible participants. Although the analysis only included eight studies of clinical pain, the authors found that hypnotic suggestions seemed to be equally effective in the laboratory and medical settings. The authors concluded that "the majority of the population (i.e., excluding people scoring in the low hypnotizability range) should benefit to a large extent from hypnotically suggested analgesia."

### **POST-TRAUMATIC STRESS DISORDER**

There is only one controlled study (16) of the use of hypnosis in the treatment of post-traumatic stress disorder. In this study, there was no advantage for using hypnosis compared with systematic desensitization and psychodynamic therapy, although the treatment groups improved relative to a waiting-list control group. At the same time, studies have shown that PTSD patients are more hypnotizable than normal controls and a variety of other populations including schizophrenia, affective disorders, and anxiety disorders (see 17,18 for reviews). However, these positive findings must be tempered by the fact that the most impressive findings were derived from a hospitalized Vietnam Veteran population, raising the question of whether some of the individuals might have been presenting themselves as highly suggestible as a means of validating their diagnosis and thereby continuing to receive benefits.

### **DISSOCIATIVE DISORDERS**

To date, no attempt has been made to

examine the relative effectiveness of hypnotic and non-hypnotic procedures with dissociative disorder patients. However, patients with dissociative disorders score higher on measures of hypnotic suggestibility than a number of different inpatient psychiatric populations and normal college students (19-21). Previous studies have not, however, evaluated whether these findings are attributable to the hypnotic context or to dissociative individuals' responses to imaginative suggestions more generally, given the moderate association between measures of dissociation and imagination. Additionally, if hypnosis is used to establish a diagnosis of dissociative identity disorder, for example, and if the procedures themselves are iatrogenic, and engender a presentation of "multiple personalities," as some have argued (see 22), then it would not be surprising at all that dissociative patients are very high in hypnotizability. Finally, studies of dissociation and hypnotic suggestibility have not used experimenters naïve with respect to the diagnosis of the patients, raising the possibility that experimenter bias contributes significant variance to the findings obtained.

### **WART REMISSION**

DuBreuil and Spanos's (23) review of the research on the psychological treatment of warts provided strong support for the contention that hypnotic suggestions can produce wart remission that can not be attributable to spontaneous remission or placebo effects. However, it is also likely that direct suggestions for wart removal, rather than hypnosis per se, is responsible for wart disappearance (24,25). DuBreuil and Spanos (23) conclude that the findings related to hypnotic suggestibility and wart remission have been mixed. However, the studies that reported a link between hypnotic suggestibility and wart remission used nonstandardized criteria, whereas the studies that failed to find an association between hypnotic suggestibility and

wart loss used standardized measures following treatment. Additionally, well-controlled studies in Spanos's laboratory (24,25) indicated that although hypnotic suggestibility failed to predict wart loss, a measure of vividness of treatment-specific imagery was significantly associated with wart regression. DuBrueil and Spanos (23) note that these findings are ambiguous insofar as they might mean: a) vivid suggestion-related imagery influences wart loss or b) imagery measures instead index treatment motivation and beliefs that participants have been able to control physiological processes.

## **OBESITY**

Levitt's (26) review of 20 published reports on hypnosis and the treatment of obesity concluded that "hypnotherapy for weight reduction is effective." Levitt also noted that individuals who participated in hypnosis and behavior modification lost an equivalent amount of weight. However, individuals who were hypnotized continued to lose weight during the follow-up periods because they seemed more motivated to practice the behavior-change tactics they had learned. Studies since Levitt's review are consistent with his contention that treatments that include hypnosis can result in weight loss (27,28).

Levitt's (26) analysis of 11 reports on the relation between hypnotic suggestibility and outcome revealed that three out of four recent studies, published since earlier reviews that concluded that no relationship was evident, indicated that there was a relationship between hypnotic suggestibility and outcome. On the basis of these studies, Levitt concluded that "At the very least, the issue is again open." (p. 542)

## **EATING DISORDERS**

Although there is limited experimental evidence regarding the use of hypnosis with eating disorders, a number of reviews (29-32) indicate that hypnotic interventions hold

promise in the treatment of eating disorders. In their review, Griffiths and Channon-Little (33) concluded that the extant evidence supports the notion that patients with bulimia nervosa as well as those with the bingeing and purging subtype of anorexia nervosa are significantly more hypnotizable than either those with restricting anorexia or non-clinical populations. In some studies, approximately half of the sample of bulimic individuals tested in the high hypnotizable range on standardized hypnotic suggestibility scales (33,34). However, hypnotic suggestibility was not found to be related to treatment outcome in these studies. Moreover, in a study (35) not cited in the review, patients with both mixed anorexia and bulimia were more highly suggestible than participants in the normal control group; however, subjective responding was not significantly different for any of the patient groups or the control group and all groups tested in the medium hypnotizability range. Other more recent studies with normal-weight college students have found evidence for: a) correlations between non-hypnotic suggestibility and restrained eating (36); b) restrained eaters to exhibit higher waking suggestibility and more subjective response to suggestions to visualize their bodies becoming fatter rather than thinner, compared to non-restrained eaters; and c) an association between waking suggestibility and cognitive restraint (37). It will be important for future researchers to disentangle the effects of waking and hypnotic suggestibility in evaluating the relation between symptoms of eating disorders and hypnotic suggestibility.

## **ANXIETY DISORDERS**

Hypnosis has proven to be a useful adjunct to psychological treatments of phobias that span a wide range of theoretical orientations, ranging from cognitive-behavioral to insight therapies. Crawford and Barabasz's (38) review paints a mixed picture of the relation between the presence of a phobic condition and

hypnotic suggestibility. Although seven of the studies they reviewed found support for an association between hypnotic suggestibility and phobias, three studies found no evidence for an association, and one of these studies found that 68% of the phobics were low hypnotizable.

A more recent and well controlled study by Schoenberger, Kirsch, Gearan, Montgomery, and Pastyrnak (39) not only failed to find a positive association between hypnotic suggestibility and treatment outcome, but the relationship was negative in direction. And finally, Van Dyck and Spinhoven (40) found that hypnotic suggestibility was associated with reduction of symptoms in agoraphobia in a hypnotic condition but not in an exposure-alone condition, a finding that supports the idea that hypnotic suggestibility is not associated with treatment gains in general, but is, instead, contextually dependent.

## **SOMATIZATION DISORDER**

Somatization is a term that encompasses reports of diverse physical symptoms in the absence of detectable physical pathology. As many as 50% or more of individuals who consult primary care physicians exhibit some degree of somatization, even if the symptoms reported do not fulfill the DSM-IV criteria for the disorder (41). According to Wickramasekera (41) either very high or very low hypnotizability can predispose somatization, along with a tendency to catastrophize and high levels of negative affect. Wickramasekera contends that hypnotic suggestibility is a risk factor because highly suggestible individuals are prone to perceive automaticity or involuntariness in both hypnotic and non-hypnotic situations, and because when threatening situational or interpersonal cues are present, "aversive changes in perception, memory, and mood" are likely to ensue in this population. Accordingly, high hypnotizability, as well as catastrophizing and negative affect, constitute a diathesis in which threat perception is maximized, particularly in

the context of stressful life events. The extent to which risk factors are present, combined with the propensity to either magnify physical symptoms or translate psychological symptoms into physical ones, dictates the way somatization is manifested, allowing for the display of a wide variety of somatization symptoms. In the absence of protective factors that are hypothesized to include strong coping skills and social support, vulnerability to a somatization disorder is increased.

Wickramasekera (41) finds support for his high risk model in studies (42,43) indicating that a disproportionate number of individuals with "typical somatization symptoms" are high and low hypnotizable compared with published reports of student controls (44). He also points to a similar pattern of findings in studies of insomniacs, obese patients, individuals with affective disorders, and chronic pain. However, Wickramasekera includes disorders such as hypertension and vascular headaches as involving "typical somatization symptoms." These disorders can often be determined to have an organic basis, even though the exact psychophysiological mechanisms may not be well understood. Additionally, the pattern of findings in many of the studies reviewed above do not conform to the distribution of hypnotic suggestibility predicted by Wickramasekera. Nevertheless, more research is called for, with well-validated scales of hypnotic suggestibility, and clinicians would do well to evaluate individuals with somatization symptoms so that hypnotic procedures could be used to relieve symptoms where indicated. Indeed, according to the threat perception model, hypnotic suggestibility plays a critical role in the diagnosis and treatment of somatization disorder.

## **DEPRESSION**

The relationship between depression and hypnotic suggestibility has received considerably less attention than the relationship

between hypnosis and many other disorders. McCloskey, Kumar, and Pekala (45) recently reviewed the extant research and were able to identify only five studies that investigated the relation between depression and hypnotic suggestibility. In all of these studies, depression was found to be unrelated to hypnotic suggestibility, depressed individuals were less suggestible than non-depressed persons, or depressed participants were not at all suggestible. In a sixth study that the authors conducted (45), hypnotic suggestibility was not related to depression, although hypnotic suggestibility was found to be related to a measure of physical anhedonia. It does not appear that the failure to find a relationship between hypnotic suggestibility and depression can be attributable to the effects of psychotropic medications for the treatment of depression (46). Although researchers have not systematically studied the effects of hypnosis on depressed versus non-depressed patients, Yapko (47) contends that a variety of hypnotic techniques can be useful in the treatment of depression.

### **ASTHMA**

In the single study (48) that directly assessed the relation between hypnotic suggestibility as measured by a standardized scale and treatment gains, only highly suggestible patients in the hypnosis treatment achieved symptom improvement on self-report and physiological measures. Low hypnotizable patients, regardless of whether they participated in hypnosis or an attention control condition did not improve. Findings from less well controlled studies range from finding a substantial relation of hypnotic responsiveness to symptom improvement to finding no relationship at all between improvement and outcome (see Pinnell and Covino, 2002). However, these less well controlled studies did not use standardized scales, and ratings of hypnotic responsiveness were made by the treating physician, raising the

possibility that the ratings were based on the remission of symptoms (49).

### **PSYCHOSIS**

Not all patient populations appear to be highly suggestible, which may account for why hypnosis is not universally employed. The paradigmatic example is that of psychosis. Early reports dating to the late 19th century estimated that only 10% of psychotic patients were suggestible (50). Copeland and Kitching (51) were even less optimistic regarding treatment prospects, noting that "true cases of psychosis" were impervious to hypnosis. Several reviews (52,53) have confirmed the observation that psychotic individuals are generally less hypnotically suggestible than their non-psychotic counterparts, although some research indicates that psychotic individuals can respond to hypnotic suggestions and test in at least the normative range of hypnotic responsiveness (e.g., 54). Interestingly, in the undergraduate college student population, schizotypy, characterized by the capacity for "unreality experiences," including perceptual distortions and magical thinking, is correlated with hypnotic suggestibility ( $r=.43$ ; 55). Unfortunately, no controlled studies have been conducted to evaluate the relation between treatment outcome and hypnotic suggestibility among psychotic patients.

### **CONCLUSIONS**

Whereas our discussion indicates that high hypnotic suggestibility is in no case associated with a negative treatment outcome, it is not necessarily an advantage. A clear exception to this is in the area of pain management in which highly suggestible individuals are more responsive to hypnotic analgesia than low suggestible individuals. This finding can probably be accounted for in terms of the correspondence between the experience of

analgesia and the ability to alter cognitive-perceptual-sensory processes that typify the person who is highly responsive to hypnotic suggestion (56). It would therefore seem to be incumbent on clinicians to assess hypnotic responsiveness in clients prior to administering hypnotic suggestions for pain relief.

Other disorders or conditions in which the findings are mixed, yet at least somewhat promising regarding the link between suggestibility and treatment outcome, include smoking cessation, obesity, warts, anxiety, somatization, and asthma. The fact that many studies indicate little or no relation between hypnotic suggestibility and treatment outcome may mean that typical interventions require little special hypnotic or imaginative abilities and instead rely on relatively easy suggestions (e.g., relaxation, guided imagery, imaginative rehearsal) that the majority of the population can pass (56).

The association between hypnotic suggestibility and treatment outcome is potentially mediated by diverse factors including positive motivation, beliefs and expectancies about hypnosis. Clearly, clinicians should assess these factors in tandem with hypnotic suggestibility in general in order to gauge clients' readiness, preparation, and proclivities for treatment, hypnotic or otherwise. Kirsch (57) has defined hypnotic suggestibility as the increment in responding to imaginative suggestions (e.g., suggestions on

standardized hypnosis scales) when they are administered in a hypnotic context (i.e., procedures labeled as "hypnosis") over and above when they are administered in a "waking" context. Conceptualizing hypnotic suggestibility in this way is important because much of the variability in "hypnotic responding" can be accounted for in terms of responses to imaginative suggestions administered in non-hypnotic situations. According to this line of reasoning, in order to "test" for hypnotic suggestibility it is necessary to test each subject's responsiveness to imaginative suggestions in both a hypnotic and a non-hypnotic context. An important task for future researchers is to investigate the clinical correlates of high suggestibility and the link between suggestibility and treatment outcome when hypnotic suggestibility is measured along the lines suggested by Kirsch.

More generally, it is imperative that future studies use well-standardized hypnotic suggestibility scales, examine the correlates of hypnotic suggestibility with outcome measures administered before and after hypnosis to evaluate the potential contaminating influence of order of scale administration, and select clients who are carefully diagnosed with a particular condition. In this way, it will be possible to develop empirically supported treatments that can be better targeted to individuals of different levels of hypnotic suggestibility.

## REFERENCES

1. Bates BL. Individual differences in response to hypnosis. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;23-54.
2. Spiegel D. Hypnosis. In: Howells JG, ed. *Modern perspectives in the psychiatry of the neuroses*. New York: Brunner-Mazel, 1989.
3. Lynn SJ, Kirsch I, Neufeld J, Rhue JW. Clinical hypnosis: Assessment, applications, and treatment considerations. In: Lynn SJ, Kirsch I, Rhue JW, eds. *Casebook of clinical hypnosis*. Washington, DC: American Psychological Association, 1996;3-30.
4. Mott T. The Clinical Importance of hypnotizability. *American Journal of Clinical Hypnosis* 1979;21:263-269.
5. Perry C, Gelfand R, Marcovitch P. The relevance of hypnotic susceptibility in the clinical context. *Journal of Abnormal Psychology* 1979;88:592-603.
6. Spanos NP. Hypnosis, hypnotizability, and hypnotherapy. In: Snyder CR, Forsyth DR, eds. *Handbook of social and clinical psychology: The health perspective*. Elmsford, NY: Pergamon, 1991.

7. Wadden TA, Anderton CH. The clinical use of hypnosis. *Psychological Bulletin* 1982;91:215-243.
8. Kirsch I, Montgomery G, Sapirstein G. Hypnosis as an adjunct to cognitive-behavioral psychotherapy: a meta-analysis. *J Consult Clin Psychol* 1995;63:214-220.
9. De Groh M. Correlates of hypnotic susceptibility. In: Spanos NP, Chaves JF, eds. *Hypnosis: The cognitive-behavioral perspective*. Buffalo, NY: Prometheus Books, 1989;32-63.
10. Brown DP. Clinical hypnosis research since 1986. In: Fromm E, Nash MR, eds. *Contemporary hypnosis research*. New York, NY: The Guilford Press, 1992;427-458.
11. Council JR, Kirsch I, Grant DL. Imagination, expectancy, and hypnotic responding. In: Kunzendorf RG, Spanos NP, Wallace B, eds. *Hypnosis and imagination: Imagery and human development series*. Amityville, NY: Baywood Publishing Co., Inc. 1996;41- 65.
12. Green JP, Lynn SJ. Hypnosis and Suggestion-Based Approaches to Smoking Cessation: An Examination of the Evidence. *The International Journal of Clinical and Experimental Hypnosis* 2000;48:195-224.
13. Lynn SJ, Neufeld V, Rhue JW, Matorin A. Hypnosis and smoking cessation: A cognitive-behavioral treatment. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;555-585.
14. Schoenberger, N.E. Kirsch, I Gearan, P Montgomery, G Pasternak, S.L. Hypnotic enhancement of a cognitive behavioral treatment for public speaking anxiety. *Behavior Therapy* 1997;28:127-140.
15. Montgomery G, DuHamel KN, Redd WH. A meta-analysis of hypnotically induced analgesia: How effective is hypnosis? *International Journal of Clinical and Experimental Hypnosis* 2000;48:138-153.
16. Brom D, Kleber RJ, Defare PB. Brief psychotherapy for post-traumatic stress disorder. *Journal of Consulting and Clinical Psychology* 1989;57:607-612.
17. Cardena E. Hypnosis in the treatment of trauma: A promising, but not fully supported, efficacious intervention. *International Journal of Clinical and Experimental Hypnosis* 2000;48:225-238.
18. Spiegel D. Hypnosis in the treatment of posttraumatic stress disorders. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of Clinical Hypnosis*. Washington: American Psychological Association, 1993.
19. Bliss EL. Multiple personalities. A report of 14 cases with implications for Schizophrenia and hysteria. *Arch Gen Psychiatry* 1980;37:1388-1397.
20. Bliss EL. A symptom profile of patients with multiple personalities, including MMPI results. *J Nerv Ment Dis* 1984;172:197-202.
21. Frischholz EJ, Lipman LS, Braun BG, Sachs RG. Psychopathology, Hypnotizability, and Dissociation. *American Journal of Psychiatry* 1992;149:1521-1525.
22. Lilienfeld S, Lynn SJ, Kirsch I, Chaves J, Sarbin T, Ganaway G, Powell R. Dissociative identity disorder and the sociocognitive model: Recalling the lessons of the past. *Psychological Bulletin* 1999;125:507-523.
23. DuBreuil SC, Spanos NP. Psychological treatment of warts. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;623-648.
24. Spanos NP, Stenstrom RJ, Johnson JC. Hypnosis, placebo, and suggestion in the treatment of warts. *Psychosomatic Medicine* 1988;50:245-260.
25. Spanos NP, Williams V, Gwynn MI. Effects of hypnotic, placebo, and salicylic acid treatments on wart regression. *Psychosomatic Medicine* 1990;52:109-114.
26. Levitt EE. Hypnosis in the treatment of obesity. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of Clinical Hypnosis*. Washington, DC: American Psychological Association, 1993;533-553.
27. Johnson DL. Weight loss for women: Studies of smokers and nonsmokers using hypnosis and multicomponent treatments with and without overt aversion. *Psychological Reports* 1997;80:931-933.
28. Johnson DL, Karkut RT. Participation in multicomponent hypnosis treatment programs for women's weight loss with and without overt aversion. *Psychological Reports* 1996;79:659-688.
29. Baker EL, Nash MR. Applications of hypnosis in the treatment of anorexia nervosa. *American Journal of Clinical Hypnosis* 1987;29:185-193.
30. Hornyak L. Hypnosis in the treatment of anorexia nervosa. In: Lynn SJ, Kirsch I, Rhue JW, eds. *Casebook of clinical hypnosis*. Washington, D.C.: American Psychological Association, 1996.
31. Lynn SJ, Rhue JW, Kvaal S, Mare C. The treatment of anorexia nervosa: A hypnosuggestive framework. *Contemporary Hypnosis* 1993;10:73-80.
32. Nash MR, Baker E. Hypnosis in the treatment of anorexia nervosa. In: Rhue JW, Lynn SL, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, D.C.: American Psychological Association, 1993;383-394.
33. Griffiths RA, Channon-Little LD. Dissociation, dieting disorders and hypnosis: A review. *European Eating Disorders Review* 1995;3:148-159.
34. Griffiths RA, Channon-Little L, Hadzi-Pavlovic. Hypnotizability and outcome in the treatment of bulimia nervosa. *Contemporary Hypnosis* 1995;12:165-172.
35. Vanderlinden J, Spinhoven P, Vandereycken W, van Dyck R. Dissociative and hypnotic experiences in eating disorder patients: An exploratory study. *American Journal of Clinical Hypnosis* 1995;38:97-108.



36. Wybraniec A, Oakley D. Dietary restraint, hypnotizability and body image. *Contemporary Hypnosis* 1996;13:150-155.
37. Frasilho F, Oakley D. Hypnotizability, dissociation and three factors of eating behaviour. *Contemporary Hypnosis* 1997;14:105-111.
38. Crawford HJ, Barabasz AF. Phobias and intense fears: Facilitating their treatment with hypnosis. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;311-337.
39. Schoenberger N, Kirsch I, Gearan P, Montgomery G, Pastyrnak SL. Hypnotic enhancement of a cognitive behavioral treatment for public speaking anxiety. *Behavior Therapy* 1996;28:127-140.
40. Van Dyck R, Spinhoven P. Does preference for type of treatment matter? A study of exposure in vivo with or without hypnosis in the treatment of panic disorder with agoraphobia. *Behavior Modification* 1997;21:172-186.
41. Wickramasekera I. Assessment and treatment of somatization disorders: The high risk model of threat perception. In: Rhue JW, Lynn SJ, Kirsch I, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;587-621.
42. Wickramasekera I. A model of people at high risk to develop chronic stress-related symptoms. In: McGuigan FJ, Smye W, Wallace JM, eds. *Stress and tension control 2*. New York: Plenum Press, 1984.
43. Wickramasekera I. The unconscious, somatization, psychophysiological psychotherapy and threat perception: Footnotes to a cartography of the unconscious mind. *Biofeedback* 1991;19:18-23.
44. Kirsch I, Council JR, Wickless C. Subjective scoring for the Harvard Group Scale of Hypnotic Susceptibility, Form A. *International Journal of Clinical and Experimental Hypnosis* 1990;38:101-111.
45. McCloskey MS, Kumar VK, Pekala RJ. State and trait depression, physical and social anhedonia, hypnotizability and subjective experiences during hypnosis. *American Journal of Clinical Hypnosis* 1999;41:231-252.
46. Spiegel D. Hypnotizability and psychoactive medication. *American Journal of Clinical Hypnosis* 1980;22:217-222.
47. Yapko MD. A brief therapy approach to the use of hypnosis in treating depression. In: Lynn SJ, Kirsch I, Rhue JW, eds. *Casebook of clinical hypnosis*. Washington, D.C.: American Psychological Association, 1996;75-98.
48. Ewer TC, Stewart DE. Improvement in bronchial hyper-responsiveness in patients with moderate asthma after treatment with a hypnotic technique: A randomized controlled trial. *British Medical Journal of Clinical Research Education* 1986;293:1129-1132.
49. Pinnell C.M. Covino, N. Empirical findings on the use of hypnosis in medicine: A critical review. *International Journal of Clinical and Experimental Hypnosis* 2000;48:170.
50. Murray-Jobis, J. The borderline patient and the psychotic patient. In J.W. Rhue S.J. Lynn I. Kirsch, eds. *Handbook of clinical hypnosis*. Washington, DC: American Psychological Association, 1993;425-452.
51. Copeland, C. L. Kitching, E.H. Hypnosis in mental hospital practice. *Journal of Mental Science* 1937;83:216-329.
52. Pettinati HM. Measuring hypnotizability in psychotic patients. *International Journal of Experimental and Clinical Hypnosis* 1982;30:404-416.
53. Lavoie, G. Sabourin, M. Ally G. Langlois, J. Hypnotizability as a function of adaptive regression among chronic psychotic patients. *International Journal of Clinical and Experimental Hypnosis* 1976;24:238-257.
54. Pettinati HM, Kogan LG, Evans FJ, Wade JH, Horne RL, Staats JM. Hypnotizability of psychiatric inpatients according to two different scales. *American Journal of Psychiatry* 1990;147:69-75.
55. Jamieson GA, Gruzelier JH. Hypnotic susceptibility is positively related to a subset of schizotypy items. *Contemporary Hypnosis* 2001;18:32-37.
56. Lynn SJ, Kirsch I, Barabasz A, Cardena E, Patterson D. Hypnosis as an empirically supported adjunctive technique: The state of the evidence. *International Journal of Clinical and Experimental Hypnosis* 2000;48:343-361.
57. Kirsch I. Suggestibility or hypnosis? What do our scales really measure? *International Journal of Clinical and Experimental Hypnosis* 1997;45:212-225.