Assessment of Response to Clinical Hypnosis: Development of the Hypnotic State Assessment Questionnaire

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This study describes the development and preliminary psychometric properties of a scale for measuring hypnotic response in clinical hypnosis sessions. The Hypnotic State Assessment Questionnaire (HSAQ), a brief, multidimensional measure of hypnotic response during clinical sessions of hypnosis, is intended to facilitate supervision of hypnosis trainees and to document subjects’ response in clinical hypnosis sessions. Results indicate that most HSAQ subscales have good interrater and internal consistency reliability. Furthermore, HSAQ observations correlated with post-hypnotic behaviors and subjective experiences of hypnosis. Use of the HSAQ in hypnosis training settings allows supervisors to obtain standardized data describing hypnosis sessions conducted by trainees. This data may also be used to document clinical response for record keeping or research.

Hypnosis is frequently used as a clinical technique to address a variety of symptom and psychodynamic issues (Meyer, 1992). Clinical hypnosis sessions typically are tailored to the individual issues, goals, and personality of the hypnotic subject (henceforth referred to as the “patient”). From session to session, hypnotic technique and suggestions are sometimes modified based on the therapist’s observation of the patient during hypnosis, discussions with the patient following hypnosis, and changes in the patient’s issues through time. This dynamic interplay between clinical issues, psychotherapy, and the content of the hypnosis session is characteristic of hypnosis in the clinical setting.

In addition to using hypnosis for treatment purposes, many professionals receive supervision and/or supervise others in clinical hypnosis. Supervision of clinical
Hypnosis requires discussion of the hypnotic response\(^1\) of the patient and the technique being used by the trainee. Live observation, videotapes, audiotapes, informal descriptions, and chart notes are the most frequently used methods of providing information to the supervisor about the content of the clinical hypnosis session and the response of the patient. Thus, as with clinical hypnosis, hypnosis training demands attention to the dynamic interplay between the patient’s response and the technique of the hypnotherapist.

Because clinical hypnosis requires attention to the response of the patient from session to session, a need exists to document the experiences and behaviors of the patient during clinical hypnosis sessions. Tracking and documenting the response of the patient is essential for clinical work (evaluating the response of the patient to certain induction techniques, deepening techniques, and suggestions); supervision (discussing the patient’s response with the trainee); and charting (keeping an accurate, useful record of the patient’s responses in clinical hypnosis sessions) in the clinical-training setting. In this article, we present a standardized clinical instrument for the documentation and assessment of hypnotic response in ongoing clinical sessions.

It is important to distinguish between the ongoing, session-to-session assessment of clinical hypnotic response and the measurement of hypnotizability. Hypnotizability scales (e.g., Weitzenhoffer & Hilgard, 1962) are typically administered prior to the first session of clinical hypnosis; scores are used to estimate a patient’s trait ability to become engaged in the hypnotic state (Matheson, Shue, & Bart, 1989; Morgan, Johnson, & Hilgard, 1974). In clinical-training settings, hypnotizability measures assist in treatment planning, assessment of hypnotic response to different suggestions, and training of students. Thus, they are extremely useful in estimating a patient’s ability to become engaged in hypnosis and in suggesting initial directions for clinical hypnosis technique. The major hypnotizability scales (Weitzenhoffer & Hilgard, 1962; Shor & Orne, 1962; Spiegel & Spiegel, 1978; Morgan & Hilgard, 1979) have very strong psychometric properties, research support, and clinical utility, further enhancing their value in the clinical setting.

The measurement of hypnotic response in an individual clinical hypnosis session (henceforth referred to as “clinical hypnotic response”) differs from the assessment of hypnotizability. Clinical hypnotic response quantifies a patient’s behaviors and experiences in a single hypnosis session that is clinically focused, (usually) individually tailored to the patient’s issues, and placed in the context of an extended treatment (usually involving multiple hypnosis sessions). The assessment of clinical hypnotic response typically is useful for such tasks as documenting a patient’s response to a particular induction technique, evaluating the impact of a particular set of suggestions, keeping accurate and useful chart notes, monitoring change across sessions, and communicating with trainees about the response of their patients. Because hypnotizability is quite stable, variability in clinical hypnotic response is usually very limited. However, the need for documentation, monitoring, and supervision of week-to-week clinical response continues to exist, and within-subject differences in response

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\(^1\)For simplicity and in order to avoid confusion over the definitions of terms such as “hypnotic response” and “hypnotic state,” “hypnotic response” is used in this paper to refer to both subjective experience and external behavior. The authors acknowledge that multiple definitions have been proposed for response and state.
to different types of hypnotic suggestions do occur (Weitzenhoffer & Hilgard, 1963).

In training settings, assessment of clinical hypnotic response can also assist with ongoing supervision of clinical cases, evolution of the trainee’s observational skills, and monitoring of the trainee’s skill in conducting hypnosis. Novice hypnotherapists, for example, may not perform as consistently from session to session; thus, they may not evoke the same stability of hypnotic responsiveness across sessions as would an experienced hypnotherapist. Furthermore, training supervisors are often unable to observe every clinical session conducted by their students, so a standardized, quantified measure of a patient’s clinical response is helpful when conducting supervision.

Thus, a measure of clinical hypnotic response designed for the specific demands of clinical-training settings could provide useful information for training, clinical documentation, and treatment planning. In addition to the benefits already noted, such a measure could teach beginning therapists to observe and understand key responses of hypnotized individuals. It could give a normative sense of patients’ behaviors and subjective experiences of being hypnotized in clinical sessions.

The nature of clinical-training settings dictates, to a certain extent, the necessary characteristics of a measure of clinical hypnotic response. Training in clinical hypnosis often occurs in graduate schools, medical schools, hospitals, psychology internships, medical residencies, and private practices. In these settings, patients with a variety of presenting problems are often seen, and a variety of induction and suggestion techniques are therefore necessary. Clinical hypnosis treatment plans range from brief (symptom-focused; 2-5 sessions) to lengthy (hypnoanalysis; >20 sessions), and population age ranges from child to adult. In addition to clinical goals, teaching and research are adjunct goals in clinical training settings. Based on the demands of clinical-training settings, several characteristics are necessary for a measure of clinical hypnotic response:

1. Brief and easily applied to the clinical situation;
2. Flexible in accommodating a variety of procedures for induction, suggestions, and presenting problems (Brown & Fromm, 1986), yet standardized in the ratings and quantitative information obtained (Orne & O’Connell, 1967);
3. Includes both behavioral and subjective components (Pekala, 1995);
4. Yields clinically useful information, which allows an estimate of hypnotic response to a certain hypnosis session, as well as data which relate to post-hypnotic response and reduction of symptoms
5. Yields information that can be used in clinical training and supervision; and,
6. Applicable to a wide age range, including children and adults;

This article describes the development of the Hypnotic State Assessment Questionnaire (HSAQ), a brief, multidimensional measure of hypnotic response designed for use in clinical hypnosis, teaching, and supervision. The HSAQ includes two behavioral rating sections (one for behaviors during hypnosis and one for posthypnotic behavior) as well as an extremely brief experiential interview that
immediately follows the hypnosis session. Preliminary data are presented from two studies regarding the psychometric properties and utility of the HSAQ in a clinical-training setting.

**Study 1**

**Method**

*Hypnotic State Assessment Questionnaire*

The Hypnotic State Assessment Questionnaire (HSAQ) is an 18 item measure of behavioral and subjective components of hypnotic response (Appendix A). It is divided into three parts, each consisting of six items: behaviors during hypnosis (Hypnotic State Observations or HSO), behaviors immediately following the termination of hypnosis (Posthypnotic Observations or PHO), and subjective experience of hypnosis (Posthypnotic Inquiry or PHI). Items for each section were chosen based on clinical experience, review of literature, observation of videotape of hypnotized subjects, and adherence to the goals of development of the HSAQ.

Each HSAQ-HSO item (items 1 to 6) is a specific behavioral description of the appearance of a hypnotized subject (Kroger, 1977; Meyer, 1992) rated on a 1-5 Likert scale, with behavioral anchors for values of 1, 3, and 5 (Appendix A). Lower item scores reflect greater response to hypnosis. HSAQ-HSO items were chosen to reflect the observable response of a subject across various modalities, which covary with hypnotic response and which tend to be present across most types of hypnotic inductions (Brown & Fromm, 1986; Kroger, 1977; Meyer, 1992): verbal (Item 2), motoric (Item 3); relaxation (reflected in tension [Item 6] and breathing rhythm [Item 5]); and cognitive-motor focus (silence [Item 1] and eye focus [Item 4]). Because HSAQ-HSO items reflect the single construct of behavioral hypnotic focus, they are added to produce a single total score; internal consistency analyses support this approach (Table 1).

Six HSAQ-PHO items (items 7 to 12) were derived based on observations of people emerging from a hypnotic state (Appendix A): rubbing eyes, stretching, smiling, spontaneously verbalizing positive experience, spontaneously verbalizing feelings of automaticity, and the length of time from termination of hypnosis session until the subject’s first motoric response. With the exception of the motor response latency question (Item 12; coded as “0” for a motor response in 5 seconds or less, and “1” for a motor response in greater than 5 seconds), HSAQ-PHO items are coded yes/no (a value of 1 is given to a yes answer, and a value of 2 is given to a no answer). Like the HSO items, lower PHO item scores reflect greater hypnotic response. Based on rational groupings that were validated in a preliminary factor analysis (Kronenberger, LaClave, & Morrow, 1993), HSAQ-PHO items fall into three subscales: PHO-Waking Behavior (Items 7 and 8), PHO-Positive Experience (Items 9 and 10), and PHO-Automaticity/Latency (Items 11 and 12).

Finally, HSAQ-PHI items (items 13 to 18) were chosen based on a review of the literature concerning subjective experiences of hypnosis. Clinical and pragmatic concerns forced the restriction of this section to six items, despite a huge amount of subjective information that could be gathered about the hypnotic state (Field, 1965; Brown & Fromm, 1986; Shor, 1979). Ultimately, two questions were chosen from
each of three domains, which were felt to be indicative of the hypnotic state: Involuntariness-Automaticity (Field, 1965), Uniqueness (Field, 1965), and Relaxation (Brown & Fromm, 1986). Questions were phrased in simple terms so that they could be asked of children, and a yes/no answer format was adopted to increase the speed and simplicity of the inquiry; Question 14 is reverse scored (No = 1; Yes = 2). A preliminary factor analysis (Kronenberger et al., 1993) indicated that two factors (subscals) characterize PHI scores: PHI Automaticity (Items 13 and 18) and PHI Uniqueness/Relaxation (Items 14-17). Like the HSO and PHO items, lower PHI item scores reflect greater hypnotic response.

Supplemental Hypnotherapist Ratings

In addition to the HSAQ, hypnotherapists rated patients’ responses in three areas known to vary with hypnotic susceptibility (e.g., Brown & Fromm, 1986): Observed Resistance to Unexpected, Accidental Auditory Distraction (“Distraction Resistance”, such as unexpected, accidental noises in the hall; this variable reflects patients’ involvement in the hypnotic experience, to the exclusion of other sensory input; rated for 33 patients); Observed Response to Clear Behavioral Suggestions Given During Hypnosis (“Hypnotic Suggestion Response,” such as arm levitation; rated for 47 patients); and Observed Response to Posthypnotic Suggestions (“Posthypnotic Response,” suggestions given for a sensation or behavior after the termination of hypnosis; rated for 16 patients).

Patients were rated in one of these three areas only if the relevant situation was present during the natural course of the clinical hypnosis session; not all patients, for example, were given clear, observable posthypnotic suggestions, and not all sessions were punctuated by unexpected, accidental noises. However, when these situations were present, the therapist was asked to rate the patient’s response, because the patient’s response was very likely to relate to the degree of involvement in hypnosis. The items were rated on a 5-point likert scale, with lower scores reflecting greater focus, suggestibility, or hypnotic response. The items are used here as criteria to validate the HSAQ as a measure of hypnotic response.

Participants and Procedure

Participants were 50 patients (16 male, 34 female; 46 white, 4 black) being seen for clinical hypnosis at a hospital-based psychiatry clinic. The patients varied widely in age (7-68 years old; mean age = 28.24 years, SD = 15.43 years), with 11 children between the ages of 7 and 12, 8 adolescents between the ages of 13 and 17, 7 young adults between the ages of 18 and 30, and 24 adults between the ages of 31 and 68. Diagnoses represented in the sample were depressive disorders (N = 10), anxiety disorders (N = 11), somatoform/psychosomatic disorders (N = 16), nicotine dependence (N = 3), habit disorders (N = 5) and eating problems (N = 5).

Participants were seen for hypnosis by a psychologist (N = 18), psychiatry resident (N = 28), or psychology intern (N = 4). Most (45) HSAQ administrations were made during the first session of clinical hypnosis. The hypnosis performed at the clinic is permissive, typically with relaxation and mastery suggestions supplemented by focused suggestions targeting diagnostic symptoms.

For clinical, supervisory, and teaching purposes, at least one HSAQ is routinely filled out by the hypnotherapist for each patient seen at the clinic. Hypnotherapists are
shown and taught the HSAQ as a part of clinical hypnosis training, and HSAQ responses are used in supervision and treatment planning. In the study sample, HSAQ-HSO items were completed for all patients. Some patients did not receive a completed PHO or PHI section of the HSAQ due to therapist difficulty with administering all of the items of these sections (usually as a result of missed observations by the trainees). Hence, complete sets of HSAQ-PHO items were obtained for 44 patients, and HSAQ-PHI items for 38 patients.

**Results**

**Descriptive Statistics and Relationship with Demographics**

Across the entire sample, scores for the HSO and PHI subscales were generally positively skewed, reflecting a tendency for the majority of clinical cases to score as moderately to highly hypnotized on the HSO and PHI sections of the HSAQ (Table 1). Nevertheless, 20% of patients received HSO-Total scores of 15 or higher, reflecting fair to poor response to hypnosis.

Most HSAQ subscales showed moderate to strong internal consistency, especially given the small number of items on some subscales (Table 1). The PHO-Waking and PHO-Automaticity/Latency subscales showed the weakest alpha values (0.41 and 0.44, respectively); because of these low values, the PHO-Waking and PHO-Automaticity/Latency subscales were dropped from further analyses. Age was significantly related to three HSAQ subscales: HSO-Total \( (r = -0.47, p<0.001) \), PHO-Positive Experience \( (r = -0.38, p<0.01) \), and PHI-Automaticity \( (r = -0.35, p<0.05) \). Younger children scored as more motorically active with fewer spontaneously reported positive experiences and less automaticity. Sex, on the other hand, showed no significant relationship with any subscale (all \( p>0.05 \)).

**Intercorrelations of HSAQ Subscales**

Strong relationships emerged between therapists’ observations of response during the hypnosis session (HSO), observations of behaviors following the hypnosis

<table>
<thead>
<tr>
<th>Scale</th>
<th>Range</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSO-Total</td>
<td>6-21</td>
<td>11.08</td>
<td>10</td>
<td>4.3</td>
<td>0.84</td>
</tr>
<tr>
<td>PHO-Waking</td>
<td>2-4</td>
<td>3.25</td>
<td>3</td>
<td>0.8</td>
<td>0.41</td>
</tr>
<tr>
<td>PHO-Positive Experience</td>
<td>2-4</td>
<td>2.98</td>
<td>3</td>
<td>0.8</td>
<td>0.63</td>
</tr>
<tr>
<td>PHO-Automaticity-Latency</td>
<td>1-3</td>
<td>2.07</td>
<td>2</td>
<td>0.7</td>
<td>0.44</td>
</tr>
<tr>
<td>PHI-Automaticity</td>
<td>2-4</td>
<td>2.55</td>
<td>2</td>
<td>0.8</td>
<td>0.80</td>
</tr>
<tr>
<td>PHI-Uniqueness/Relaxation</td>
<td>4-8</td>
<td>4.74</td>
<td>4</td>
<td>1.1</td>
<td>0.73</td>
</tr>
</tbody>
</table>
session (PHO), and the subjective impressions of patients (PHI). HSO-Total scores correlated strongly (all $p<0.01$) with PHO-Positive Experience ($r = 0.63$), PHI-Automaticity ($r = 0.46$), and PHI-Uniqueness/Relaxation ($r = 0.61$). Similarly, strong relationships were found between PHO-Positive Experience and the PHI subscales ($r = 0.41$ and 0.48 for Automaticity and Uniqueness/Relaxation, respectively, $p<0.01$).

Association of HSAQ Scales with Supplemental Hypnotherapist Ratings

In order to test the utility of HSAQ subscales in predicting patients’ response during and after hypnosis, HSAQ scores were correlated with supplemental hypnotherapist ratings of Distraction Resistance, Hypnotic Suggestion Response, and Post-Hypnotic Response. Results indicated moderate to strong relationships between HSAQ subscale scores and these supplemental hypnotherapist ratings (Table 2).

Study 2

Method

Participants and Procedure

This study sought to provide preliminary data concerning the interrater reliability of the HSAQ. Two hypnotherapists (LL and WK) independently coded 8 videotapes of clinical hypnosis sessions with children ranging in age from 6 to 14 years (mean age = 10.1 years, SD = 2.6 years; 5 girls; 7 white, 1 black). Coders received no special training beyond reading and discussing the HSAQ prior to coding any of the tapes. The coders did not communicate about the coding of specific sessions and were blind to each other’s ratings. Two of the children were seen for Somatoform Disorders, two for PTSD, three for pain control, and one for psychological factors affecting physical condition. Only the HSO and PHO sections were coded for reliability,
since these two sections involve behavioral coding. The HSAQ-PHI was not coded for interrater reliability, since the PHI section involves simply recording the subject’s yes/no answers to a set of questions.

**Results**

Interrater reliability values, assessed by percentage agreement, Pearson correlations, and intraclass correlation coefficients (ICC; Shrout & Fleiss, 1979), were very high for the HSO-Total and PHO-Positive Experience scales (Table 3). For 5 of the 6 individual HSO items (excluding the breathing item (Item 5), which was difficult to see on the videotape), raters agreed within 1 rating scale point on 100% of the cases. Percentage agreement was between 75% and 100% for individual PHO items.

**General Discussion**

Overall, the HSAQ demonstrated good interrater reliability, internal consistency reliability (with the exception of the two PHO subscales which were dropped from other analyses), content validity, and construct validity in a clinical sample. Interrater reliabilities of the HSO and PHO-Positive Experience scores were in the acceptable to high range; internal consistency values for the HSO, PHI, and PHO-Positive Experience subscales were also in acceptable ranges, especially when the relatively small number of items is considered. Strong intercorrelations of HSAQ subscales indicated congruence between behavioral observations of the hypnotherapist and subjects’ internal experiences, suggesting that HSAQ subscales measure related constructs. Finally, relationships between HSAQ subscales and therapist ratings of resistance to distraction, responsiveness during hypnosis, and responsiveness to posthypnotic suggestion offer construct validity that HSAQ scales measure clinical

### Table 3: Interrater Reliability for HSO and PHO Subscales

<table>
<thead>
<tr>
<th>Item/Scale</th>
<th>Interrater r</th>
<th>ICC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSO Total</td>
<td>0.96***</td>
<td>0.71***</td>
</tr>
<tr>
<td>PHO Positive Experience</td>
<td>0.91***</td>
<td>0.59***</td>
</tr>
</tbody>
</table>

Note: “Interrater r” refers to the Pearson correlation coefficient between raters’ scores across subjects (interrater correlation). “ICC” refers to intraclass correlation coefficient with (7,8) df.

a $p<0.10$

* $p<0.05$

** $p<0.01$

*** $p<0.001$
hypnotic response.

In terms of content validity, HSAQ items and subscales were chosen to sample behaviors and experiences common to a variety of hypnotic inductions, based on a review of the literature describing behavioral and subjective responses to hypnosis (Brown & Fromm, 1986; Field, 1965; Fromm et al., 1981; Kroger, 1977). By focusing on such common behaviors and experiences, the HSAQ can be used to rate subject response without requiring the use of a standardized hypnotic induction or suggestions. This flexibility is essential in clinical-training settings, where a variety of presenting problems are treated with various hypnotic techniques and where hypnotic techniques may be varied from session to session. Furthermore, the HSAQ is organized to assess both subjective experiences and behavioral responses, reflecting the multidimensional nature of assessment of hypnotic response (e.g., Pekala, 1995).

One set of unexpected findings were the significant correlations between age and three HSAQ subscale scores. Specifically, children were more motorically active and less relaxed (HSO Total score), showed fewer spontaneous positive signs following hypnosis (PHO-Positive Experience), and reported fewer feelings of automaticity (PHI-Automaticity). In contrast, some studies of children in the 8-12 year age range report that children are more suggestible than adults on tests of hypnotizability (Olness & Gardner, 1988). These discrepant results may reflect a baseline tendency of children to be more motorically active (activity level decreases with age; see Achenbach, 1991) and more reticent (or less insightful) about reporting their experiences following hypnosis. If this is the case, the decline in activity level during hypnosis (relative to baseline activity level) may be equivalent for children and adults; children are simply more active in general. This suggestion fits with our observations of children in clinical hypnosis.

An alternative explanation for children’s higher scores on the HSAQ subscales is that the HSAQ is not a valid measure of hypnotic response for children. To test this hypothesis, we re-executed all correlational analyses (identical to analyses in the Results section and Tables) using only the children (younger than 18) in the sample. The results of these re-analyses were very similar to results from the analyses for the entire sample (a table is available from the authors), although significance values were lower because of the relatively small number of children (N = 19) in the sample (analyses for distraction resistance and posthypnotic response could not be performed because of N<10 for these variables). Thus, the HSAQ yielded the same validity results for children as for adults.

A second set of interesting findings was the positive skew of the HSAQ subscales. This positive skew probably resulted from several sources: First, HSAQ items do not focus on the high degree of suggestibility tested by some of the major hypnotizability scales. In other words, the HSAQ does not “challenge” the patient to demonstrate hypnotizability; rather, the purpose of the HSAQ is to document response to clinically relevant suggestions, not to assess behavioral demonstration of degree of hypnotizability. Second, the study sample consisted of patients who voluntarily presented for hypnosis. Hence, patients may have been invested in having a positive response and the therapist may have been invested in seeing a positive response, reflecting expectancy and demand effects. Expectancy and demand effects would not produce relationships across scales, however, since these effects were relatively similar across members of the sample (e.g., all had clinical problems, all presented for
Several issues must be considered for the future clinical-training and research use of the HSAQ. First, stability of HSAQ ratings is not known, and, conversely, the degree to which HSAQ scores may vary from session to session is not known. A related issue is the correspondence between HSAQ scores and existing measures of hypnotizability. Moderate to strong relationships between HSAQ scores and pretreatment hypnotizability scores are expected, with hypnotizability acting as a baseline measure from which HSAQ scores for individual sessions will deviate somewhat, based on the effects of different inductions, transient personal states, skill of the hypnotherapist, and characteristics of the clinical setting.

A second issue is the use of hypnotherapist ratings for the 12 behavioral-observational items (HSO and PHO) of the HSAQ, as well as for the “supplemental hypnotherapist ratings” used in Study 1. This use of a single rater for these items could potentially introduce method bias (in which a single rater responds consistently to different items based on a subjective global impression) into the correlational analyses of this study. However, the finding of moderate to high interrater reliability argues against strong subjective influences in HSAQ ratings. Furthermore, correlations between observational scales (HSO and PHO; rated by the hypnotherapist) and subjective scales (PHI; items answered by the patient) were also quite high, indicating congruence between the observations of the therapist and the experiences of the subject. Finally, PHI ratings correlated very strongly with the supplemental hypnotherapist ratings, despite the fact that PHI items are patient-rated and the supplemental ratings are coded by the hypnotherapist. These findings are inconsistent with the presence of a strong method bias in the study.

A third issue pertains to the individual meaning of the HSAQ subscales. Although analyses showed moderate (e.g., PHO-Positive Experience and PHI-Automaticity) to strong (e.g., HSO and PHO-Positive Experience) relationships between HSAQ subscales, some statistical independence exists among the subscales, suggesting that they tap somewhat different constructs. It is possible, for example, that HSO and PHO-Positive Experience scores would differ from the PHI subscale scores if the patient’s behavioral focus and compliance are inconsistent with his or her subjective experience of hypnosis. Such a situation may arise if a patient is behaviorally still/relaxed during hypnosis (HSO and PHO reflecting strong hypnotic response) but is not cognitively involved in the hypnosis experience (PHI reflecting poor hypnotic response). On the other hand, differences between the PHI subscales (Automaticity and Uniqueness-Relaxation) may indicate that a patient has achieved relaxation (strong Uniqueness-Relaxation response) without the dissociation/automaticity typical of hypnosis (weak Automaticity response). In general, significant deviation of a subscale score is likely to reflect a missing element of the hypnotic experience, although this hypothesis remains to be tested empirically.

A final issue pertains to the specific roles and utility of the HSAQ for training purposes, in light of study results. The results of this study support the preliminary use of the HSAQ as a valid and reliable measure of hypnotic response in clinical-training sessions. In addition to utility as a supervisory and documentation tool, descriptive results of HSAQ scores based on large clinical samples may be used to
give students a “normative” sense of what responses to expect from patients in clinical settings, as well as the frequency and type of unusual responses in areas tapped by HSAQ items. Furthermore, HSAQ scores may predict patient responsiveness to suggestions during and after clinical hypnosis (see Table 2), assisting with supervision and treatment planning for future hypnosis sessions.

**Clinical Use and Case Example**

The HSAQ is designed as a tool for two primary uses: clinical assessment and supervision. For clinical assessment, the HSAQ may be used to document the behavioral and subjective response of a patient for charting, communication, and tracking purposes. The HSAQ provides a standardized way of charting hypnotic response, which is easily communicated to referral sources and other professionals. We have used the HSAQ to provide referral sources with a “normative” sense of the clinical response of the patient, based on comparisons with our clinical HSAQ database. Structured chart notes also assist us with communication with referral sources about the type and quality of response that we observe in our patients; quantitative data is valued by referral sources as a means of tracking our patients and as a means of using research to inform our clinical use of hypnosis. We also use the HSAQ to compare across chart notes from session to session in order to track quantitative changes in our patients’ responses to different techniques and suggestions; these comparisons provide us with hypotheses and directions for further hypnosis sessions.

In the teaching arena, our trainees use the HSAQ to provide us with a quantitative record of their patients’ response to hypnosis. Based on this record, we discuss the trainee’s induction, suggestions, and formulations about the patient’s response. We also use the HSAQ to teach trainees about the “typical” responses of patients in clinical hypnosis. For example, trainees are often surprised to find that children are more motorically active in hypnosis, and our research-supported statements that children are more motorically active gives trainees a sense of what to expect. This expectation prevents a misunderstanding of the degree to which a motorically active child is hypnotized. Trainees also are taught what to observe during hypnosis and what to query following hypnosis, based on the content of the HSAQ.

Clinically, the HSAQ can assist with documentation and with a treatment plan, as shown in the following clinical example (demographic and some background information have been altered to maintain confidentiality):

Donald was a 12-year-old male referred for hypnosis by his rheumatologist. He had been diagnosed with severe dermatomyositis and was being treated with steroids and chemotherapy. Donald’s condition and treatment had produced significant problems with pain, nausea, and vomiting, with medical treatment only partially successful in alleviating his physical condition. Donald’s rheumatologist requested hypnosis to assist Donald with managing severe pains in his legs and with managing anxiety, nausea, and vomiting secondary to the chemotherapy treatments.

At the time of the referral, Donald’s rheumatologist expressed some concerns that Donald may be reluctant to engage in hypnosis. Donald was anxious about seeing a psychologist, and his mother expressed skepticism that hypnosis could do anything to help Donald’s “physical” problems of pain and nausea. Donald’s mother stated that hypnosis seemed rather “mystical” to her, and she was surprised that her scientifically minded rheumatologist had recommended hypnosis. Because of these
concerns, both Donald’s mother and Donald’s rheumatologist requested that the psychologist provide regular updates about Donald’s response to hypnosis. Donald’s mother stated that she would agree to Donald having “a couple of sessions” with the psychologist.

Donald presented as a wary child complaining of pain in his back and lower legs. He expressed skepticism about psychological treatments, but he stated that he was very motivated to try anything that might help. He stated that he was interested in learning self-hypnosis for pain control, although he expressed some wariness about being hypnotized.

The HSAQ was explained to Donald and his mother as a way for the psychologist to document Donald’s response to hypnosis, as well as a way to structure the feedback requested by Donald’s mother and by the rheumatologist. Donald and his mother were told that before and after each hypnosis session, the psychologist would make some observations and ask a few questions to help with treatment (they were not shown the HSAQ). Following the intake session (for evaluation and psychoeducation about hypnosis, stress, coping, and pain control), Donald and his mother agreed to try a three-session initial course of clinical hypnosis, with the possibility of additional sessions as needed.

In the first session of clinical hypnosis, Donald identified back pain as his most severe physical symptom over the past few weeks. He stated that his current level of back pain was a 4 on a 1 (no pain) to 10 (excruciating pain) scale, although he noted that the pain often intensified to an 8 or 9 at other times. Immediately before the hypnosis session, Donald rated his level of relaxation as a 6 on a 1 (not at all relaxed) to 10 (very relaxed) scale.

The initial clinical hypnosis session used eye fixation for induction, followed by deepening (counting backwards) and imagery of Donald sitting on the beach (an image which he had suggested as a favorite place). Suggestions were given for relaxation and comfort, with no direct suggestions about pain control. Donald appeared somewhat uncomfortable at times during hypnosis, occasionally shifting and changing his pattern of breathing. His HSAQ scores were as follows: HSO-Total = 12; PHO-Positive Experience = 4; PHI-Automaticity = 2; PHI-Uniqueness/Relaxation = 4. Immediately following the hypnosis, Donald rated his back pain as a 4 (no change) and his relaxation as a 9 (3 point increase). On further questioning, Donald reported that the hypnosis had been a positive experience for him, although he felt that he was not as involved in the experience as he might have been because of some pain and fears about hypnosis. Donald was given an audiotape of the session and asked to practice self-hypnosis at home.

Following the initial hypnosis session, the psychologist met with Donald’s mother, who asked about Donald’s response to the clinical hypnosis session. The psychologist explained that Donald appeared to have shown a moderate response to the hypnosis. Donald’s mother asked on what basis the judgment of a moderate response was made. As part of the explanation of moderate response, the psychologist reviewed Donald’s scores on the HSAQ: Donald’s HSO-Total and PHO-Positive Experience scores were slightly higher than the mean for a clinical sample (Table 1), indicating slightly poorer than average behavioral manifestations of hypnotic response. However, Donald’s PHI scores were lower than average for a clinical sample, consistent with above-average subjective hypnotic response (appropriate cautions about self-report
bias were also explained). Donald’s mother appeared reassured by the systematic data that had been gathered about Donald’s clinical response, as well as the comparisons to our clinical database. Following the session, the rheumatologist was called, and the HSAQ was used as a part of the description of Donald’s response to the hypnosis session. Donald’s HSAQ scores were also added to his chart notes in order to document his response from session to session.

For Donald’s second session of hypnosis (one week later), a similar induction and suggestion technique was used, with the addition of a suggestion that a comfortable breeze would touch Donald’s back and bring feelings of numbness, followed by pleasant sensations (Donald had stated in the first session that one of his favorite things about the ocean was the breeze on his skin). Immediately prior to hypnosis, Donald rated his back pain as a 5 and relaxation as a 6. During hypnosis, Donald again shifted occasionally and varied his pattern of breathing. His HSAQ scores were HSO-Total=13, PHO-Positive Experience = 4, PHI-Automaticity = 2, and PHI-Uniqueness/Relaxation = 4. Following hypnosis, Donald reported that his back pain had decreased to 4 and his relaxation had increased to 9. Donald noted following hypnosis that the beach imagery made him very relaxed, but that the pain was bothering him during hypnosis, causing him to shift around. He reported similar experiences when practicing at home.

When meeting with Donald’s mother at the end of the second session, the psychologist again used the HSAQ to demonstrate Donald’s good self-reported (PHI) subjective response in the context of low-average behavioral (HSO) response. Comparisons to the HSAQ database were used to support the psychologist’s explanations. The psychologist told mother that a different set of suggestions would be tried next session, with the HSAQ used for comparing Donald’s hypnotic response across sessions.

The third hypnosis session consisted of an eye fixation induction with counting backwards used for deepening. Suggestions were made for a glove anesthesia over the right hand, with imagery of a comfortable glove fitting over the hand (magic glove). Donald was then told to have the hand touch a place on his body which he wished to have a similar anesthetic sensation. Donald touched his back. During the session, Donald moved little and appeared very relaxed. Prior to the hypnosis session, Donald had rated his back pain as a 6 and his relaxation as a 7; his posthypnosis ratings were 2 for back pain (substantial reduction) and 9 for relaxation. His HSAQ scores were 9 for HSO-Total, 2 for PHO-Positive Experience, 2 for PHI-Automaticity, and 4 for PHI-Uniqueness/Relaxation. Donald was extremely enthusiastic about this hypnosis session and wanted to use his magic glove audiotape at home.

The improvement in HSAQ scores was reported to Donald’s mother and the rheumatologist. Two significant points were emphasized: comparison between Donald’s HSAQ scores across sessions, and comparisons of Donald’s HSAQ scores to the group clinical data in the HSAQ database. This use of quantified data was valuable in Donald’s case for documentation, treatment planning, and communication.

Donald attended two additional sessions. He reported effective use of the magic glove technique to control back, leg, and stomach pain. Although he continued to have some manifestations of these symptoms, he reported feeling better about having some control over their level of severity. Both Donald and his mother reported that hypnosis had been a positive experience and that they had appreciated the systematic, well-monitored approach taken in his treatment.
References


## Appendix A: Hypnotic State Assessment Questionnaire

### Part I: Hypnotic State Observations (HSO)

For this section, code ONLY spontaneous behaviors (e.g., not those requested by hypnotherapist such as a request to speak or move).

1. Noise Made by Patient (Vocal, Verbal, Motoric-Postural, Etc.):

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<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td></td>
<td>None; Completely Quiet</td>
<td>Occasional Noise</td>
<td>Loud or Frequent Noise</td>
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2. Spontaneous Verbalizations (Words Only):

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<tr>
<td></td>
<td>None (0-2 words)</td>
<td>Occasional (2-4 words)</td>
<td>Frequent Talk (&gt;8 words)</td>
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3. Motoric Behavior (Not Including Eyes or Breathing):

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<tr>
<td></td>
<td>No Movement; Completely Still (Occasional Shift)</td>
<td>Slight Movement</td>
<td>Almost Constant Movement</td>
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4. Focused Attention (Eyes):

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<tr>
<td></td>
<td>Eyes Constantly Fixed or Closed</td>
<td>Occasional Eye Movement (4-5 times)</td>
<td>Almost Constant Eye Movement</td>
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5. Rhythmical Breathing:

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<td></td>
<td>Constant, Regular Breathing</td>
<td>Occasional Irregular Breathing (2-3 times)</td>
<td>Irregular or Shallow Breathing</td>
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6. Relaxed State/Lack of Tension:

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<td></td>
<td>Observed Signs of Relaxation: Fists Uncurved; Face Relaxed; Muscles Limp</td>
<td>One or Two Signs of Tension: Curled Fists; Furrowed Brow; Tense Muscles; Curled Toes; Clenched Jaw</td>
<td>Clearly Tense; Several Signs of Tensioness; Not at All Relaxed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part II: Posthypnotic Observations (PHO)

Circle Y (for Yes) or N (for No) based on the patient’s behaviors in the 10 second period following eye opening, eye movement, or other indication that trance is terminated.

7. Y N Rubs Eyes.
8. Y N Stretches.
10. Y N SPONTANEOUSLY verbalizes positive experience.
11. Y N SPONTANEOUSLY reports feelings of involuntariness or automaticity.
12. <6 >5 Latency of motor response after patient is told/allowed to terminate hypnotic state (i.e., when therapist stops speaking at termination of trance).
   Number of Seconds: _______________________________

Part III: Post Hypnotic Inquiry (PHI)

Ask the following questions VERBATIM and circle the response (Y for Yes; N for No).

13. Y N Did your thoughts and feelings seem to happen all by themselves?
14. Y N Have you ever felt this way before (EXCLUDING previous hypnosis experience)?
15. Y N Did your body feel relaxed?
16. Y N Did you think comfortable thoughts?
17. Y N Did you feel different from how you normally feel?
18. Y N Did your thoughts happen without you trying to think them?

Scoring:

HSO-Behavior (3,4,5,6)= _________   HSO-Noise (1,2)= _________
HSO-Total (1,2,3,4,5,6)=__________   PHO-Wake (7,8)= _________
PHO-Positive Exp (9,10)= _________   PHO-Aut/Lat (11,12)= _________
PHI-Automatic (13,18)= _________   PHI-Uni/Rel (14-17)= _________