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Applications of Clinical Hypnosis with Children

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HISTORICAL PERSPECTIVES

Hypnosis with children has been documented since ancient times. Many cultures have rich histories of healing, religious, and/or initiation rites which involve trance or trance-like phenomena in children. In more modern times Dr Franz Mesmer's application of *animal magnetism* was used in the treatment of children as well as adults. While the Franklin commission's investigation of Mesmer in 1784 concluded that the described clinical effects were not due to magnetism, it also specifically attributed their observations to 'imagination', now recognized as a critical operative ingredient in child hypnosis.

Prior to the development of chemical anaesthesia, Braid and Elliotson successfully applied hypnotic strategies with many children to facilitate their comfort during major surgery. At the end of the nineteenth century, French physicians Liebeault and Bernheim reported the use of hypnotic techniques for childhood habit problems and also reported on child hypnotic susceptibility. In his hypnosis textbook of 1903, J. Milne Bramwell, an English psychotherapist, reported the successful use of hypnotherapy with habits such as nail biting and with recurrent headaches. The use of hypnosis with children in North America did not receive much attention thereafter until the late 1950s when its use was promoted by Drs Milton Erickson and Erik Wright, and the 1960s when the skilled child hypnosis contributions of Dr Franz Baumann led to him becoming the first paediatrician to be President of the American Society of Clinical Hypnosis (ASCH).

Increased documentation of successful clinical applications of hypnosis with children (Gardner, 1976, 1978; Olness, 1975) appeared in the 1970s. During the same time research began to report both the clinical efficacy and psychophysiologic changes associated with self-hypnosis in children. Additionally, the benefits of hypnosis training were recognized for children with chronic illnesses such as cancer, haemophilia, and asthma.

The numbers of child health professionals trained in hypnosis have increased

substantially over the past 25 years. Increasing numbers of substantive research projects seek to understand the clinical effects of these self-regulation methods and to apply them with greater precision.

Hypnotherapeutic methods with and without other self-regulation training (e.g., biofeedback) (Culbert, Reaney & Kohen, 1994) offer child health professionals opportunities to facilitate the development of competency and a sense of personal mastery in the children with whom they work. Successful applications of self-regulation include a focus on personal control and decision-making by the child, and specific attention to the child's preferences in using personal imagery skills. Ongoing research examining the characteristics of children's imagery (Kosslyn, Margolis, Barrett, Goldknopf & Daly, 1990) will hopefully provide clinicians more precise guidelines in selecting individual hypnotherapeutic approaches for a given child.

DEFINITION AND THEORETICAL UNDERSTANDING

Functionally, hypnosis in children can be defined as an alternative state of awareness and alertness (similar in *feeling* to daydreaming or imagination) in which an individual is selectively focused, absorbed, and concentrating upon a particular idea or image (with or without relaxation), with a specific purpose of achieving some goal or realizing some potential.

From this perspective we probably are 'doing' hypnosis work when we engage our young patients in conversation in which they are absorbed, paying attention, listening, and responding as requested. Most children move in and out of spontaneous hypnotic-like states as they focus their concentration, for example on video games, favourite movies (e.g., the *Lion King*, *Pocahontas*), TV football, playing 'house', listening to a story, enjoying puppet play, or otherwise engaging in fantasy. Kuttner has noted (1988), that especially young children have blurred boundaries, and move frequently, naturally, and easily from fantasy to reality.

These natural, spontaneous hypnotic states are usually positive, and are characterized, as are 'induced' hypnotic states, by absorption in fantasy/imagination, focused attention, and heightened suggestibility. While relaxation facilitates children's hypnotic states some of the time, it is neither universal nor necessary for successful child hypnosis. While spontaneous stillness and the relaxation response may be observed with children as with adults, younger children under 6 or 7 years commonly do not visibly relax (and therefore should not be expected to) when in hypnosis. Beyond not being obviously relaxed, younger children in hypnosis commonly move around in their chair or in the room as part of absorption and engagement in fantasy. In such involved hypnotic experiences younger children often prefer to not close their eyes. Mindful of this, clinicians modify their approaches and language accordingly to facilitate this 'active alert hypnosis'.

There are many roads available to the thoughtful child health clinician to guide a child toward these states of focused concentration; whether toward solving a problem, controlling discomfort, easing or eliminating anxiety, alleviating a habit, or modulating disease processes, paths available are limited only by the creativity and therapeutic relationship of the clinician and the child: Induction techniques and strategies to begin hypnosis are myriad, including virtually limitless iterations of relaxation and mental imagery (RMI), biofeedback, art therapy, music and movement therapy (Olness & Kohen, 1996).

Scales of hypnotic 'susceptibility' or 'suggestibility' were described early in the nineteenth century work of Liebeault and Bernheim, and more recently in 1963 in the work of London's Children's Hypnotic Susceptibility Scale, and Morgan and Hilgard's Stanford Hypnotic Susceptibility Scale for children in 1979 (Olness & Kohen, 1996). Unfortunately, none have proven to be of predictive value in anticipating clinical success or failure of hypnosis for a given child, group of children, or diagnosis. Hopefully, ongoing research regarding the properties and characteristics of children's imagery (Kosslyn et al., 1990) will provide more specific clinical guidelines in selecting approaches for each child. Continuing research must define and identify the ideal children's clinical hypnotic susceptibility scale. Minimally, such a scale would be:

1. Brief (e.g., 5–15 minutes long).
2. Interesting and absorbing.
3. Developmentally sensitive and specific.
4. Learning style sensitive and specific.
5. Multisensory and, perhaps, discriminating between senses.
6. Free of cultural bias.
7. Predictive (i.e. would guide a clinician in determining what type of hypnotic strategy would be most helpful for a given child with a given learning style, at a given level of development, and with a given problem).

While we await the creative development of this ideal, existing research and the ever-growing body of clinical knowledge of hypnosis with children allow us an informed position from which to depart. In clinical practice with children we make the assumption that all children (except those with moderate to severe mental retardation) have the potential for very positive hypnotic responsivity. Beginning with this positive expectation allows us to identify those factors which may potentially affect outcome; including the child's (and family's) personal history, and their desire, motivation, and expectation for change and positive outcome. Since we know that hypnosis used properly by appropriately trained clinicians is safe and effective and has no adverse side effects (Kohen & Olness, 1993), it can become an important potential tool in both adjunct and primary management of a wide variety of clinical issues in child health care.

APPLICATIONS TO CHILDREN'S HEALTH CARE

Hypnosis offers opportunities for child health professionals to facilitate mastery and competency in their child patients/clients. As with any treatment strategy one might apply, success is predicated on the patient's understanding of what is going on and why, *rather than* only upon the patient's behavior conforming to the clinician's theoretical framework or expectations. Successful methods of hypnotherapy include a focus on decision-making and control by the child and attention to the child's preferences in using their imagery skills.

DEVELOPMENTAL CONSIDERATIONS

What, when, how, and why child hypnosis occurs depends upon many child clinician, family, and circumstantial variables. Age is of little consequence, and is less important than the child's level of maturation, their ability to demonstrate understanding of language, and their ability to concentrate and/or attend to something. We are more interested in knowing where they are developmentally to know whether they might be reasonably expected to be responsive to the kinds of strategies useful, for example, for preschool-aged children. For such a child we might ask whether they could, for example, pay attention to and enjoy a pop-up book, be engaged in a bedtime story, or listen to and participate in a story on an audiotape.

Hypnotic approaches must be tailored to meet the needs of the child at his/her developmental level. A child of 9 or 10 years who is developmentally delayed and functioning at a 5-year-old level should be approached hypnotically as one might approach a 5 year old. Similarly, a precocious 10 year old might well be more appropriately treated the way one might approach an older child of 12 or 13 years. The individual personality, likes and dislikes, learning style, family constellation, prior experiences, and comprehensive clinical history each contribute critical considerations in the evolution of specific hypnotic techniques, strategies, and in structuring suggestions to help patients.

CLINICAL APPLICATIONS

Clinical applications of child hypnosis can be broadly divided into six categories. (Table 22.1). These categories provide a practical way of thinking about how these techniques may be applied within a variety of clinical practices of child health care. The clinical vignettes which follow illustrate examples of specific applications, and the use of hypnotic language both in pre-hypnosis conversation and during hypnosis for actual clinical encounters.

Table 22.1. Categories of clinical applications of child hypnosis

1. *Habit Problems and Disorders*—e.g., thumb sucking, nail biting, hair-pulling (trichotillomania), enuresis.
2. *Behavioral Problems*—e.g., adjustment disorder, anger, sibling rivalry.
3. *Biobehavioral Disorders*—e.g., asthma, migraine, Tourette syndrome, inflammatory bowel disease, hypertension, warts.
4. *Pain*—e.g., acute pain (as with injury, illness, medical procedures) or chronic and recurrent pain (as with chronic illness or disability, trauma, recurrent procedures).
5. *Anxiety*—e.g., performance (stage fright, recitals, school examinations, sports) acute grief and bereavement (death, divorce, etc.), post-traumatic stress disorders (PTSD), anxiety disorders, phobias.
6. *Chronic Disease/Multisystem Disease/Terminal Illness*—e.g., haemophilia, AIDS, cystic fibrosis, chronic renal disease (dialysis), cancer, autoimmune disorders.

HABIT PROBLEMS

Managing children's *habit problems* by teaching relaxation and mental imagery (RMI) and self-hypnosis skills (Kohen, Olness, Colwell & Heimel, 1984; Gardner, 1978; Sugarman, 1997) has been very successful, and gratifying for clinicians. When a child with a habit displays interest and desire for the habit to end, then one can confidently teach self-hypnosis skills as an approach of choice, conveying to families an expectation that with practice the problem can be expected to disappear. Most children who wish to eliminate a habit learn RMI very quickly (one or two visits). With regular rehearsal children demonstrate beginning resolution of the symptom within four or five visits (Kohen et al., 1984). The dilemma of symptom substitution, described in hypnotherapeutic management of habits in adults, is rarely seen (Gardner, 1978; Olness & Kohen, 1996) with children.

For habits—and for most, if not all, child health problems—it is critical for the clinician to not only develop rapport with the child, but also to provide specific education about how the body functions in relation to their problem. It is important to formulate in child-friendly language how the 'habit' has come about. Computer analog metaphors are often useful in talking with children about what habits are, how they develop, and, in turn, how one can learn to take control of their elimination.

The following example presents hypnotic-like language and suggestion, and sets the tone for the kinds of language, expectations, and suggestions to be offered during more formal hypnosis training which follows.

Nocturnal Enuresis

Although primary nocturnal enuresis is probably not a true habit disorder, elements of the problem include habituated/conditioned behavior, and presenting it as such is often effective in empowering children toward change. Prior to introducing

hypnosis, a comprehensive medical history, physical examination, and urinalysis should be carried out to assure clinician and family alike that no easily remediable medical-physical problem is present to explain the bedwetting (Olness, 1975; Kohen, 1990). Clinicians should strive to understand patient and family beliefs and attitudes about the origin of the bedwetting and their expectations for their roles in successful resolution. An easily understood explanation of normal genitourinary anatomy and physiology allows a process of understanding, education, and eventual mastery to proceed more quickly. In this context, enuresis may be presented as analogous to a habit, while also introducing hypnosis as a useful strategy toward elimination of the habit.

CLINICIAN: So, how come you came to see me?

CHILD (e.g., 9-year-old boy): I have a bedwetting problem.

CLINICIAN: Well, tell me, how many days a week do you wake up in a *dry bed*?' [In the absence of formal hypnotic work, a shift in language and focus begins to 'plant seeds' for future use in hypnotic suggestions. In this example, a focus on DRY BEDS is more useful than a focus on wetness.]

CHILD: Most days . . . uh . . . oh, how many are *dry?* . . . I never thought of *that*, let's see . . . about 2, sometimes 3, I guess.

CLINICIAN: Oh, so 2 days each week you wake up dry. And how about the daytime, do you have any wetting in your pants?

CHILD: No way!

CLINICIAN: You mean *every* day, *all* day is dry, *and* some nights—2 each week—are also dry? Wow, this is going to be *easier* than I thought to help you! [This reframing in the context of routine history-taking continues to 'set up' the more formalized, 'official' hypnosis which will follow.] Well, how do you *do* that?

CHILD: Do what?

CLINICIAN: How do *you do* it . . . how do *you* stay dry all day long? [The intent here is to teach and reinforce that the child is in charge of their body, and to introduce a discussion about how the body works.]

So, when you *were younger* [an indirect ego-strengthening suggestion to the patient that they are *now older*] your parents taught you. Then pretty soon you knew, like automatically, right? So, now if you have to go, you don't say out loud 'I have to pee' and announce it and then go to the bathroom, do you? Of course not . . . mostly you just go, right? Let's say you had to urinate ['pee', etc.] right now, how would you *know*?

[Most children are perplexed momentarily, then will usually respond by saying, 'I can *feel* it . . . ' which is an invitation to ask 'Yes, but how do you *know* that you feel it?' In the event the child has no information about nerves and signals

and the brain, it is easy to add 'How do you *know, where does the signal or the message come from and where does it go to?*' This allows for the natural evolution into a discussion about the body. A simple explanation includes a description of the heart as a pump, the kidneys as the filter or cleaner for the blood, and the place where urine is made, and the bladder as the sack with a muscle around it, i.e. the place that stores up the urine until it is time to urinate. We emphasize the presence of a 'door' or 'gate' on the bladder which remains closed while the urine stays in the bladder, and which opens to let the urine out into the toilet *where it belongs.* The idea that this 'gate' is made out of muscle is presented as an analogy to the child's other muscles, along with:

Who is in charge of your muscles? Right, *you* are, and especially which part of you is the 'boss' of the muscles? Right, that computer we call the brain. So, when you have to urinate, how do you know . . . ? Well, your bladder sends a signal to your brain to tell you it's full . . . it doesn't say it out loud, but if it did, it would be like 'Hey, brain, I'm full'; and your brain would get the message and say back to your bladder 'Well, thanks for calling, bladder, but this is an order to please keep the bladder gate closed 'cause it wouldn't be nice to pee on Doctor's chair!' Would you actually *say* that out loud that way, or would you *think* it in your inside thinking, or would it just *happen* that way in your inside mind? [Thus in the framework of education about how the body works, this is introduction and validation of the concept of 'subconscious' ideas and an 'inside mind'. Like other language shifts, these can be easily used later during formal hypnosis work and will have the added benefit of not being new to the child at that time.]

Would you say out loud 'Okay, feet walk to the bathroom, hands open the door and zip open your pants and aim, and now bladder you open the gate and let the pee out in the toilet?!' or, would you *just do it*? Of course, *you'd just do it* because **your brain and your bladder know how to talk to each other because you taught them a long time ago, and now** they have the *automatic habit of doing it* without even thinking about it.

Allowing intermittent time to respond to questions, the clinician can move into the suggestion 'Now that you know that, you probably realize that this problem probably happened (past tense!) because the bladder and the brain haven't been talking with each other at night 'cause they got into an *accidental* (removes blame) habit of not talking to each other. Using your inside mind like I'll teach you with hypnosis you can help them *get a new habit going so you can wake up dry in the morning.*' (The reference 'you can help' is an appeal to the growing ego helper in the child. Mention of 'them' as a reference to the brain and bladder is purposely dissociative suggestion to distance themselves from responsibility.)

Such explanations are geared toward: (a) beginning relief of guilt and shame; (b) provision of a logical way of thinking about the problem; and (c) planting of seeds for motivation and positive expectations for ultimate resolution of the problem through self-hypnosis.

BEHAVIORAL PROBLEMS

Self-hypnosis skills have value largely as an adjunct in management of the wide range of 'behavioral problems', serving often to help a child and family to interrupt patterns of maladaptive behavior sufficiently to allow change to occur.

An approach to this group of concerns requires the establishment of specific objectives. These might include improved coping, allaying of anxiety, and facilitating improved self-esteem with the aid of self-hypnosis, rather than expecting problem resolution as one might reasonably expect in treating habits.

Children's *anger or temper tantrum responses* lend themselves easily to hypnotic intervention. Teaching self-hypnosis often gives a child something constructive, personal, and relaxing that he/she can do to help interrupt the anger, helplessness, and/or loss of control commonly accompanying tantrum behavior. Children quickly learn that when they practise self-hypnosis regularly when they are *not* having a tantrum, they are teaching themselves to get under control quickly 'when they really need it'.

Case History: Sarah

Eight-year-old Sarah was brought to the Behavioral Paediatrics Program Clinic for 'behavior problems'. These included picking on her 7-year-old sister and 5-year-old brother, disruptive behaviors at after-school day care, and defiance and anger outbursts almost daily in interactions with parents. She met criteria for a diagnosis of Oppositional Defiant Disorder, and had no ADHD or learning difficulties. Therapy for Sarah and her family included primarily behavioral management including family meetings and negotiation. For her angry outbursts, Sarah was taught self-hypnosis which included:

'With your eyes closed have an on-purpose daydream of yourself doing something you like a lot, . . . really enjoy it in your mind as though it was happening right now. Maybe you'll be riding your bike with your friends . . . When you're very comfortable imagining that, then turn on an imaginary VCR & TV in the corner of your mind. Let me know when it's on (she nods her head). NOW . . . to learn something really neat and very important, watch a video from the other day when you were really upset and angry at home about something your brother did (she nods her head without being asked). Now, press STOP! on the remote controller and put on a video of happy, growing-up Sarah . . . see how she's smiling, and look at how proud her Mom and Dad are . . . and how proud she is . . . Great!'

Sarah was taught a second way to manage anger: 'When you notice the mad feeling starting, see what colour it is, and what shape . . . and picture a faucet in the side of that red triangle of angry. Now, turn on the faucet in your mind . . . let the angry feeling run out of your thinking, down your face, out of your face into

your neck, down your shoulder, and into your arm, and down into your hand. When the angry is all down in your hand, roll your hand into a tight fist, take a deep breath and hold it . . . hold your fist tight while you count . . . slowly . . . down from five . . . 5 . . . 4 . . . 3 . . . 2 . . . 1 . . . 0 and when you get to 0 let your breath out slowly, that's right . . . and feel yourself relax all over, and picture throwing the mad, angry feelings far away . . . into the trash, or to outer space . . . because there is no need for them now that you know how to relax . . . Great! Look back in your mind and see what colour and shape the angry feeling changed to . . . good . . . see the colour and shape of feeling relaxed and comfortable . . . and more controlled . . . . And when you're calm like this, you can talk even easier with Mom and Dad . . . .'

Analogously, self-hypnosis training focusing on control and relaxation is an effective adjunct in management of adjustment disorders, in building self-esteem through ego-strengthening, and as a key element of *overall stress management*.

A cooperative and informed involvement of the family may be accomplished by teaching parents about self-hypnosis (e.g., through a demonstration experience of hypnosis with themselves or through viewing of brief videotaped examples) so that they may understand what their child is learning. With this awareness and information, parents are so much more willing and comfortable with the subsequent request that they allow their child the freedom and autonomy to develop this skill at home without their reminders, interference, or unnecessary degree of involvement. This may include specific requests to parents to not remind children to 'practise' their self-hypnosis. To facilitate this, children are encouraged to call the clinician with questions that arise, with the focus that the clinician—and not the parent—is the 'coach' or teacher for the hypnosis practice. Such an approach promotes autonomy and allows room for continued development of the clinician–child relationship. This is both appropriate for and acceptable to most families with the exception of children under 4 or 5 years who may not be able to remember or be sufficiently autonomous to carry out self-hypnosis practice on their own. In these situations it is important that parents be trained to be the 'coach' at home, with guidance from the clinician. Parents vary in their acceptance and adherence to these guidelines, and management must be individualized.

BIOBEHAVIORAL DISORDERS

This group of disorders with clearly identified pathophysiologic origins and effects have been traditionally understood to have significant psychoemotional components. Examples include asthma, migraine, encopresis, Tourette's Syndrome, and inflammatory bowel disease, all of which are known to include psychological stress as just one stimulus which may 'trigger' exacerbations or promote difficulties with the disease. Teaching self-hypnosis as an integral component of a comprehensive

management approach has the dual goal of promoting an overall sense of self-control and providing a strategy for reduction of symptoms.

In the case of a child with encopresis, for example, self-hypnosis may be one strategy of a multimodal therapeutic plan involving education about gastrointestinal anatomy and physiology, nutritional guidance (toward an anti-constipating diet), behavior modification and self-monitoring for its value in self-regulation (e.g., regular toilet sitting after meals with a sticker-chart reward system).

The effectiveness of hypnosis to regulate functions previously thought to be involuntary has now been well established in research. These include demonstration of self-regulation of peripheral temperature (Dikel & Olness, 1980), brainstem audio-evoked response (Hogan, Olness & MacDonald, 1985), transcutaneous oxygen flux (Olness & Conroy, 1985), salivary immunoglobulin (Olness, Culbert & Uden, 1989), migraine headaches (Olness, MacDonald & Uden, 1987), pulmonary function (Kotses, Harver, Segreto et al., 1991; Kohen, 1995b), and tics and Tourette's Syndrome (Kohen & Botts, 1987; Kohen, 1995a).

Children with asthma easily learn to use self-hypnosis and biofeedback to modulate acute episodes of wheezing (Kohen, 1986; Kotses et al., 1991; Kohen & Wynne, 1997; Kohen, 1995b). Children with asthma who learn self-hypnosis experience fewer Emergency Room visits, fewer missed school days, and a better sense of control (Kohen, 1995b). Young people with juvenile migraine who learn RMI are more effective in reducing the intensity, frequency, and duration of their migraine headaches than control patients or patients taking propranolol (Olness, MacDonald & Uden, 1987).

With all child hypnotherapy, precise hypnotic suggestions depend upon the child's personal imagery (e.g., favourite activities), on their unique understanding of their problem, and the feelings and imagery they report in association with modulation of the problem. An 11-year-old girl with migraine was asked to draw a picture of migraine, and her image of comfort (i.e. no headache). She drew a chaotic mixture of red, black, and blue scribbled lines labelled 'migraine'; and then drew a scene of a beach, complete with blanket, beach umbrella, a book, a 'boom box' tape player, and a drink with a straw. When the time came to select hypnotic imagery 'where nothing bothers you and where you never had a headache', the choice was clear (Kohen & Olness, 1993)

Case History: Barry

> Barry is a boy of over 12 years referred by his paediatric neurologist for self-hypnosis for migraine headaches. A bright young man, Barry said 'We came here upon the recommendation of Dr ____ who said I could learn how to hypnotize myself for my migraines . . . If I could drop the migraines that would great . . .' Barry detailed his 7-year history of headaches which began in Kindergarten. Acetaminophen had been helping, but then 'stopped working'. Ibuprofen was said to help about half of the headaches, but they

preferred to not use any medicine. Typical for migraine, Barry's headaches occurred in the forehead, often beginning unilaterally and 'sometimes ocular'. Sonophobic and photophobic during a headache, he noted triggers to include bright lights like the computer or TV, stress like an upcoming test in school, and of being 'very small and getting shoved and jostled a bit.' Barry described fatigue and loss of appetite in association with his headaches. Most headaches lasted 1–2 hours, though some had lasted an entire day. He reported daily headaches, particularly over the past month with half being 'regular' ones and half being 'migraines'.

The idea of a headache ruler from 0 to 12 was introduced. Barry caught on quickly and said 'usually it's a 3 or 4 . . . without Ibuprofen the highest will be 9, highest ever was a 10 or 11 and usually it has to be 6 before I take the medicine. It gets the headache to go 'down to like 2 or 1 or 0'. He says he can be his regular self when it's at 1–2. Barry's goal was to get the headache down 'under 2, maybe to 1.75'.

Barry also had respiratory allergies since age 6, short stature (smallest in his junior high 7th grade), and a history of sleepwalking, having once been discovered trying to leave the house in the middle of the night.

At the second visit Barry's calendar showed headaches most days in the previous 2 weeks, with self-ratings as high as '7'. He and his family watched a video of other children learning self-hypnosis. he was taught a self-hypnosis exercise focusing on favourite place imagery, progressive relaxation, and imagining the headache 'ruler' in his mind, adjusting it whatever way he decided. Stories were told of other children who adjusted *their* rulers, for example, 'I knew this 7-year-old girl who had tummy aches, and every time she had one she'd picture an elevator in her mind and whatever the tummy ache was on, she'd be on that floor . . . so if it was a 4 she'd picture herself on the fourth floor, and she'd reach over and push the elevator button to ride . . . down . . . to 3 . . . the light would go off at 4 and on at 3 . . . then off at 3 on at 2 . . . that's right. Then 1 and then 0 and when she got off the elevator her tummy ache was gone. There was this 11-year-old boy who had headaches, he pictured himself travelling around his own body, made his way to the main computer called the brain, found the switch for headaches, and turned . . . it . . . down . . . I don't know what ways you'll discover, but you will . . .' He was taught self-hypnosis during this first experience and agreed to practise daily.

At the third visit 2 weeks later, Barry proudly reported daily self-hypnosis practice at bedtime, and only three headaches in the preceding 2 weeks. At the fourth visit 2 weeks later he reported two headaches which 'I got rid of in 5 minutes with my self-hypnosis.' Barry's mother was thrilled to note the startling difference in him, noting not only absence of headaches, but that he was no longer coming home from school exhausted, and overall seemed much happier.

PAIN

Children in acute pain are often the easiest patients to help with the use of hypnotic techniques because they are highly motivated to feel better, to re-establish a sense of control in their life, and to rid themselves of—or at least decrease—their discomfort. In an office, Emergency Room, urgent care centre, or even at an accident site it is important to speak to an injured or ill child in a manner at once reassuring, comforting and believable. Children in an emergency situation of acute pain are already in a spontaneous, negatively focused, hypnotic state, negative in its acutely focused concentration on the injury, the bleeding, and the fear that things will get worse (Kohen, 1986; Olness & Kohen, 1996; Kuttner, 1997). It is, therefore, that much more important that we choose our language of communication carefully, and modulate what we say and how we say it to foster attention toward positive feelings, expectations, and ultimately cooperation. When a clinician empathically tells an Emergency Room child-patient 'Whew . . . that really hurts', this immediately identifies the clinician as a good observer, fosters the child's willingness and ability to pay attention to the clinician, and opens the opportunity for additional hypnotic suggestions toward relief: for example, 'I'm glad you came to the doctor, it will probably hurt less soon' or 'It will probably keep right on hurting until it doesn't need to anymore . . . now that you're here and know you will be getting help . . .'. Such positive 'reframing' expectations may then easily be reinforced by hypnotic strategies designed to allow the child to alter their perception of discomfort; for example, we might say 'Would it be okay to take your mind somewhere else?' or 'What will you do when you get home, after this is taken care of?' Beyond distraction, this query offers the reassurance to the child that s/he *will* be going home. Similarly, children in acute pain often easily accept direct 'permission' or suggestions to dissociate their pain; for example, 'Close your eyes . . . find the switches in your mind that control discomfort . . . find the one for your leg . . . What colour is it in your mind? . . . What shape? Is it a turn or a flip or a slide kind of switch? Now, turn it down . . . and then 1-2-3-click, off, and notice how different it feels . . . nice going!' Adding relaxation, dissociation via leaving to a favourite place, or hypnoanesthesia or analgesia by cleaning the injured part with a 'special liquid that is cool and comforting' are additional strategies that may be useful, especially as they are tailored to the child's needs (Kohen & Olness, 1993; Olness & Koben, 1996).

For procedures such as injections, venipunctures for blood withdrawal or intravenous hookups, a bone marrow or spinal taps more time is usually available to plan treatment and hypnotic assistance. This allows for, and should include, a creative exploration of the techniques that may be of greatest benefit to a given child, and for rehearsal in preparation for the designated procedure. A myriad of pain (and anxiety) control methods with hypnosis (Olness & Kohen, 1996) might include:

1. Re-creating a feeling of numbness from memories of previous (local) anaesthesia.
2. Practising modulating discomfort through turning down a 'pain switch'.

3. Sending discomfort away by blowing it away in bubbles (literally and imaginatively) (Kuttner, 1986, 1988, 1997, 1999; Sugarman, 1997).
4. Imagining taking an adventure trip around the body to install a protective barrier to prevent the signal from the potential pain site from getting through to the mind. When the procedures are recurrent, and what is anticipated is predictably emotionally charged by the recalled pain from the previous procedure, adding hypnotic amnesia for the prior event may be very beneficial.

Memories of previous pain may dramatically affect a child's perceptions and behaviors with the next episode of some recurrent pain syndrome (e.g., recurrent abdominal pain, migraines, inflammatory bowel disease, etc.) or in association with their chronic illness. As with biobehavioral problems, the application of hypnosis in management of chronic or recurrent pain in children and adolescents is best viewed and understood as one strategy within a comprehensive pain management programme tailored to the child's personal, individual needs (Kuttner, 1999).

ANXIETY

A sensitive, complete history and assessment, along with careful pacing of the emerging therapeutic relationship, will commonly yield ideas about the proper role of hypnotherapy for a particular child. For the common performance anxiety of stage fright, or palpitations or 'butterflies in the stomach' before a big game or a recital, it is often easily demonstrated to the child that their response, like a habit, has become a conditioned reaction association with negative expectations, and that it can in fact learn similarly to be modified and mastered.

This may be accomplished easily by discussing the everyday phenomena of physiologic responses to stressful events. One easily understood example is that of blushing with embarrassment. The clinician can explain that one first experiences something, followed by a feeling reaction of embarrassment, followed often 'instantaneously' by a physical response of blushing which in itself may be embarrassing. When the clinician asks the child if they *stay* blushed, they usually comment that they can and do act in some way to *relieve* the feeling of embarrassment, thus curtailing the blushing episode. This brief conversation can provide an everyday example of how a shift in the way a child *feels* can provide a shift in the physical response (of blushing) without even thinking about it. Graphic representative of changes in autonomic responsivity in response to feeling or 'thinking' changes can be even more dramatically demonstrated to children through computerized biofeedback reflection of EMG (electromyographic), EDA (electrodermal activity), or peripheral temperature changes during hypnosis/relaxation and imagery experiences (Culbert, Reaney & Kohen, 1994).

Cognitive mastery then allows the hypnotic approach to reinforce whatever approach one wishes to take to allay anxiety. This may include the 'split screen approach' in which the child imagines himself *at home* successfully and flawlessly

practising a speech, soccer kicks, dancing, the violin solo; and then hypnotically sees himself transfer that positive, success image to an adjacent image of himself on the stage in the auditorium or at the site of the big game. Other options might include using the idea of 'switches' to teach a child to 'Just turn down the dial on that nervous feeling from 4 to 3 . . . That's right . . . from 3 to 2 . . . great . . . and either 2 to 0 right away or 2 to 1 and then to 0, whichever you prefer.' Motivating, ego-strengthening suggestions might include so-called 'future projection', that is picturing in their mind 'how the audience is applauding, how proud you feel, and the wonderful things you hear your proud Mom and Dad saying'.

Other anxiety reactions, such as phobias, or post-traumatic stress disorder may require more intensive hypnotherapeutic treatment and incorporate elements of desensitization procedures. Detailed descriptions of integration of hypnosis with psychotherapy can be found elsewhere (Hammond, 1990; Rhue, Lynn & Kirsch, 1993; Olness & Kohen, 1996).

The use of hypnotherapy as an adjunct to supportive counselling is often very effective in helping children and families with the common experience of separation anxiety. These include sadness and other symptoms associated with moving away from old friends, re-entering school after a long recess/holiday, or helping children with the natural but difficult process of grief and bereavement following the death of a grandparent, other relative or friend, or pet. The use of positive imagery of happy memories, re-experienced by way of age regression, may provide a respite from feelings of loneliness, as well as a bridge to learning about and accepting death (Kohen & Olness, 1996).

CHRONIC DISEASE, MULTISYSTEM DISEASE, TERMINAL ILLNESS

Less is known about the influence of hypnosis and self-hypnosis on the progress of malignant disease than about anxiety. Children with cancer do quickly learn RMI strategies and apply them in a variety of ways to aid in coping with their disease. In 'No Fears, No Tears' and its sequel, 'No Fears, No Tears – 13 Years Later' (Kuttner, 1986, 1999), informative and optimistic films, children with cancer demonstrate the range and usefulness of hypnotic techniques in helping themselves to modify discomfort, effectively manage difficult and repetitive medical procedures, and manage the effects of these challenging treatments.

Studies also indicate that children are able to use hypnotic skills to reduce nausea and vomiting associated with chemotherapy (Zeltzer & LeBaron, 1982; LeBaron & Hilgard, 1984; Jacknow, Tschann, Link & Boyce, 1994). It also has been demonstrated (Olness & Singher, 1989) that children use RMI most effectively when they learn the techniques soon after their initial diagnosis (LaClave & Blix, 1989). With terminally ill children, hypnosis has been a particularly effective adjunctive modality in assisting them and their families to cope with and navigate the last moments of life (Gardner, 1976; Olness & Kohen 1996).

CONCLUSION

Hypnosis and hypnotherapy are both effective and efficient strategies when used thoughtfully by well-trained, skilled clinicians. As with any therapeutic modality, clinicians should obtain appropriate training in paediatric clinical hypnosis to apply and integrate it within general or specialty paediatric care. Clinicians consistently discover that their patients learn hypnosis by applying innate imaginative skills as described here, and in the process develop an increased sense of mastery in the context of their ongoing maturation. Whereas many therapeutic interventions may have untoward side effects, the major by-product of hypnotherapy with children is that which we hope and strive to promote, that is a sense of increased competence.

NB: Training in paediatric clinical hypnosis is available through the Society for Developmental and Behavioral Pediatrics (c/o Ms Noreen Spota, 19 Station Lane, Philadelphia, PA 19119-2939), The American Society of Clinical Hypnosis (130 E. Elm Court, Suite 201, Roselle, IL, 60172-2000, USA, FAX 630 351 8490, and the Society for Clinical and Experimental Hypnosis (SCEH, PO Box 642114, Pullman, WA 99164-2114. Phone 509 332 7555 FAX 509 335-2097. email sceh@pullman.com).

REFERENCES

Culbert, T., Reaney, J. & Kohen, D. P. (1994). Cyberphysiologic strategies in children: The biofeedback-hypnosis interface. *Int. J. Clin. Exp. Hypn.*, **42**, 97–117.

Dikel, W. & Olness, K. (1980). Self-hypnosis, biofeedback and voluntary peripheral temperature control in children. *Pediatrics*, **66**, 335–340.

Gardner, G. G. (1976). Childhood, death, and human dignity: Hypnotherapy for David. *Int. J. Clin. Exp. Hypn.*, **24**, 122–139.

Gardner, G. G. (1978). Hypnotherapy in the management of childhood habit disorders. *J. Pediatrics*, **92**, 838–840.

Hammond, D. C. (Ed.) (1990). *Handbook of Hypnotic Suggestions and Metaphors*. New York: W. W. Norton.

Hogan, M., Olness, K. & MacDonald, J. (1985). The effects of hypnosis on brainstem auditory responses in children. *Am. J. Clin. Hypn.*, **27**, 91–94.

Jacknow, D. S., Tschann, J. M., Link, M. P. & Boyce, W. T. (1994). Hypnosis in the prevention of chemotherapy related nausea and vomiting in children. A prospective study. *J. Develop. Behav. Pediatrics*, **154**, 258–264.

Kohen, D. P. (1986). Applications of relaxation/mental imagery (self-hypnosis) in pediatric emergencies. *Int. J. Clin. Exp. Hypn.*, **34**(4), 283–294.

Kohen, D. (1990). A hypnotherapeutic approach to enuresis. In D. C. Hammond, (Ed.), *Handbook of Hypnotic Suggestions and Metaphors* (pp. 489–493). New York: W. W. Norton.

Kohen, D. P. (1994). Self-regulation by children and adolescents with cystic fibrosis: Applications of relaxation/mental imagery (self-hypnosis). Paper presented at the 36th Annual Scientific Meeting of the American Society of Clinical Hypnosis, 15 March, 1994.

Kohen, D. P. (1995a). Ericksonian communication and hypnotic strategies in the management of tics and Tourette Syndrome in children and adolescents. In S. R. Lankton & J.K. Zeig (Eds), Ericksonian Monographs Number 10: *Difficult Contexts for Therapy* (10, pp. 117–142). New York: Brunner/Mazel.

Kohen, D. P. (1995b). Relaxation/mental imagery (self-hypnosis) for childhood asthma: behavioral outcomes in a prospective, controlled study. *HYPNOS*, *Swedish J. Hypn. Psychother. Psychosom. Med*., **22**(3), 133–144.

Kohen, D. P., Olness, K. N. Colwell, S. O. & Heimel, A. (1984). The use of relaxation/mental imagery (self-hypnosis) in the management of 505 pediatric behavioral encounters. *J. Develop. Behav. Pediatrics*, **5**(1), 21–25.

Kohen, D. P. & Botts, P. (1987). Relaxation-imagery (self-hypnosis) in Tourette Syndrome: Experience with four children. *Am. J. Clin. Hypn.*, **29**(4), 227–237.

Kohen, D. P. & Wynne, E. R. (1997). Applying hypnosis in a preschool family asthma education program: Uses of storytelling, imagery, and relaxation. *Am. J. Clin. Hypn.*, **39**(3), 2–24.

Kohen, D. P., Mahowald, M. W. & Rosen, G. M. (1992). Sleep-terror disorder in children: The role of self-hypnosis in management *Am. J. Clin. Hypn.*, **34**, 233–244.

Kohen, D. P. & Olness, K. (1993). Hypnotherapy with children. In J. W. Rhue, S. J. Lynn & I. Kirsch (Eds), *Handbook of Clinical Hypnosis* (pp. 357–381). Washington, DC: American Psychological Association.

Kosslyn, S. M., Margolis, J. A., Barrett, A. M., Goldknopf, E. F. & Daly, P. F. (1990). Age differences in imagery abilities. *Child Develop*., **61**, 995–1010.

Kotses, H., Harver, A., Segreto, J., Glaus, K. D., Creer, T. L. & Young, G. A. (1991). Long term effects of biofeedback-induced facial relaxation on measures of asthma severity in children. *Biofeed. Self-Reg*., **16**, 1–22.

Kuttner, Leora (1986). 'No Fears, No Tears: Children with Cancer Coping with Pain' (30-minute videotape & manual). Canadian Cancer Society, Vancouver, BC, Canada.

Kuttner, L. (1988). Favourite stories: A hypnotic pain-reduction technique for children in acute pain. *Am. J. Clin. Hypn.*, **30**, 289–295.

Kuttner, Leora (1996). *A Child in Pain: How to Help, What to Do*. Hartley & Marks Publisher, Canada.

Kuttner, Leora (1999). 'No Fears, No Tears – 13 Years Later' (Videotape). Canadian Cancer Society, Vancouver.

LaClave, L. & Blix, S. (1989). Hypnosis in the management of symptoms in a young girl with malignant astrocytoma: A challenge to the therapist. *Int. J. Clin. Exp. Hypn.*, **37**, 6–14.

LeBaron, S. & Hilgard, J. R. (1984). *Hypnotherapy of Pain in Children with Cancer*. Los Altos, CA: William Kaufmann.

Olness, K. (1975). The use of self-hypnosis in the treatment of childhood nocturnal enuresis: A report on 40 patients. *Clin. Pediatrics*, **14**, 273–279.

Olness, K. (1981). Imagery (self-hypnosis) as adjunct therapy in childhood cancer: Clinical experience with 25 patients. *Am. J. Pediat. Hematology/Oncology*, **3**, 313–321.

Olness, K. (1990). *Pediatric Psychoneuroimmunology: Hypnosis as a Possible Mediator: Potentials and Problems in Hypnosis: Current Therapy, Research and Practice*. Amsterdam: VU University Press.

Olness, K. (1990). Reflex sympathetic dystrophy syndrome in children treated successfully with cyberphysiologic strategies. *Swedish J. Hypn. Psychother. Psychosom. Med*., **17**, 15–18.

Olness, K. & Conroy, M. (1985). Behavioral considerations in leukemia management. In C. Pochedley (Ed.), *Acute Lymphoid Leukemia in Children*. New York: Masson Publishing.

Olness, K., Culbert, T. & Uden, D. (1989) Self-regulation of salivary immunoglobulin A by children. *Pediatrics*, **83**(1), 66–71.

Olness, K. & Singher, L. (1989), Pain and symptom management training for children with cancer: A five year study. *Topics in Pediatrics*, **7**, 2–6.

Olness, K. & Kohen, D. P. (1996). *Hypnosis and Hypnotherapy with Children* (3rd edn). New York: Guilford Press.

Olness, K., MacDonald, J. & Uden, D. (1987). Prospective study comparing propanolol, placebo and hypnosis in management of juvenile migraine. *Pediatrics*, **79**, 593–597.

Rhue, J. W., Lynn, S. J. & Kirsch, I. (Eds) (1993), *Handbook of Clinical Hypnosis*. Washington DC: American Psychological Association.

Sugarman, L. I. (1997). Imaginative Medicine: Hypnosis in Pediatric Practice. (Videotape Documentary). New York: Rochester.

Zeltzer, L. & LeBaron, S. (1982) Hypnosis and non-hypnotic techniques for reduction of pain and anxiety during painful procedures in children and adolescents with cancer. *J. Pediatrics*, **101**, 1032–1035.