Long-Term Follow-Up of Self-Hypnosis Training for Recurrent Headaches: What the Children Say

Daniel P. Kohen

University of Minnesota, Minneapolis, USA

Available online: 25 Aug 2010

To cite this article: Daniel P. Kohen (2010): Long-Term Follow-Up of Self-Hypnosis Training for Recurrent Headaches: What the Children Say, International Journal of Clinical and Experimental Hypnosis, 58:4, 417-432

To link to this article: http://dx.doi.org/10.1080/00207144.2010.499342

PLEASE SCROLL DOWN FOR ARTICLE

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
LONG-TERM FOLLOW-UP OF SELF-HYPNOSIS TRAINING FOR RECURRENT HEADACHES: What the Children Say

Daniel P. Kohen

University of Minnesota, Minneapolis, USA

Abstract: The author sent surveys to 178 consecutive youths previously referred for hypnosis for headaches. The survey sought current status of headaches: treatment, application of self-hypnosis, headache intensity, frequency, duration after self-hypnosis, generalization of self-hypnosis to other problems, and attitudes regarding self-hypnosis and life stresses. Of 134 delivered surveys, 52 were returned complete. Years after treatment, 85% (44/52) reported continued relief with self-hypnosis, 44% (23/52) reported decreased headache frequency, 31% (16/52) noted decreased severity, and 56% (29/52) reported that self-hypnosis reduced headache intensity. Many (26/52) emphasized the value of self-hypnosis to life stresses. In children and adolescents, self-hypnosis is associated with significant improvement of headaches and with an enduring positive effect for many years following training. Results suggest common and spontaneous generalizability of self-hypnosis by young people to modulation of other problems in their lives.

Recurrent and chronic headaches are common in children and adolescents, and the discomfort and associated distress commonly result in substantial functional disability, including school absenteeism and reduced participation in extracurricular activities. As many as 11% of children 5 to 15 years (Abu-Arafeh & Russell, 1994) and as high as 28% of adolescents 15 to 19 years (Split & Neuman, 1999) may experience and be affected by recurrent headaches. Compared to 13% of adults, nearly 20% of children have migraines (Headache Classification Sub-Committee of the International Headache Society, 2004), reflecting one of the most common chronic conditions of childhood. Beyond keeping children and adolescents from feeling able to go to school, to...
concentrate, and to participate, recurrent headache (HA) may result in an increased focus on other somatic concerns, reduced participation in sports and other extracurricular activities, difficulties in social/family interactions (Brna, Gordon, & Dooley, 2008; Carlsson, Larsson, & Mark, 1996; Karwautz et al., 1999; Mazzotta et al., 2005; Rohner, 2006).

While pharmacologic interventions have traditionally been the first line of treatment for recurrent HA, they are not always successful, and, indeed, overuse of analgesics or abortive medications may contribute to rebound HA if used excessively (Fisher, 2006).

Triptan preparations and beta-blockers, often prescribed for adults, are much less effective in young people and may cause more side effects than benefits (Lewis et al., 2004). In one study, Olness and colleagues found that self-regulation strategies were superior to propranolol, which was no more effective than placebo (Olness, MacDonald, & Uden, 1987). In a recent report, Andrasik, Grazzi, Usai, and Bussone (2007) noted relaxation therapy to be equally effective as and more accepted than medication both in the initial acute phase of treatment as well as in follow-up 1 and 2 years after the initial therapy.

Self-hypnosis has been shown to be an effective therapeutic approach for the (self-) management of HAs in children and adolescents (Andrasik et al., 2007; Eccleston, Yorke, Morley, William, & Mastroyannopoulou, 2003; Mazzotta et al., 2005; McGrath, 1999; Olness & Kohen, 1996; Olness et al., 1987; Rohner, 2006; Sugarman, 2007a). In a recent report, Kohen and Zajac (2007) described the efficacy of self-hypnosis training in 144 consecutive children with headaches. The vast majority of young people learning self-hypnosis reported statistically significant reduction in frequency, intensity, and duration of headaches compared to the nature of their headaches before learning self-hypnosis. The authors concluded that in this unselected sample learning self-hypnosis was associated with significant improvement of chronic recurrent headaches in children and adolescents. A Cochrane Library review of 30 papers (Eccleston et al., 2003) also concluded that approaches such as relaxation and related psychological and cognitive-behavioral therapies are effective in reducing both severity and frequency of chronic HA in this population (Eccleston et al.).

In addition to the cost savings of not having to purchase prescription or over-the-counter medications, advantages of self-hypnosis training over pharmacotherapy include having virtually no adverse effects as compared to medications. An active mechanism of self-regulation and coping, self-hypnosis reflects an internally derived, self-reinforcing methodology as compared to other treatments such as medications, which are external to the individual.

While many studies and reports have established the efficacy of self-hypnosis in modulating the headache experience in children and adolescents (Andrasik et al., 2007; Carlsson et al., 1996; Eccleston et al.,
few reports have investigated long-term outcomes in large groups of children and adolescents who have utilized self-hypnosis for HA problems. One, Andrasik et al., compared behavioral treatment including relaxation to pharmacotherapy in a group of 80 children. Of 38 in the behavioral group, 21 (55%) completed 2 years of follow-up, and, of 42 in the pharmacotherapy group, 14 (33%) completed the 2-year follow-up. Although the clinical results were similar, relaxation therapy was considered to be more acceptable, and the authors concluded that “behavioural therapies provide children with practical and versatile pain control tools that can be used in different situations in which they develop headache” (p. S238). In this report, there was no mention of any inquiry regarding application of behavioral strategies to other problems in the participants’ lives.

No previous studies have explored the views of children and adolescents regarding any ongoing or long-term benefit of having learned self-hypnosis for headaches. In an educational videotape, Kuttner (1999) provides a compelling review of the long-term benefits of children with cancer who learned self-hypnosis to help manage pain, procedural anxiety, and other challenges associated with cancer and its treatment. Kuttner’s clinical report offers a significant view into the world of children, their learning and application of self-hypnosis skills for a specific purpose, and the continuing application of those skills in their lives as they matured.

This article represents the result of a long-term follow-up survey of a previously identified and reported cohort of 144 young people with chronic, recurrent headaches who successfully applied self-hypnosis training to self-regulation and modulation of headaches (Kohen & Zajac, 2007). The survey was conducted to examine the self-perceptions of children and adolescents regarding the effects and possible benefits of self-hypnosis in their lives over time, both on the headaches for which they were originally taught self-hypnosis and on other circumstances in their lives. Our a priori hypothesis was that a significant majority of the patients surveyed would report not only sustained improvement/control of HA but also a generalization of self-hypnotic skill application to other challenging or stressful areas in their lives.

**Hypotheses**

1. Our hypothesis was that children who had reported positive value of self-hypnosis (SH/RMI) when they originally learned the skill would continue to effectively adapt and apply the self-regulation methods to headaches as they got older, even in the absence of further clinical visits for continued training.
2. Children and youth who had successfully applied SH/RMI for headaches would spontaneously apply these self-regulation strategies to other discomforts, anxieties, stresses, and/or challenges in their lives.

**Method**

A retrospective review was conducted of the outpatient clinical records of 178 consecutive children and adolescents referred to the Behavioral Pediatrics Program (University of Minnesota) for management of chronic recurrent headaches (Kohen & Zajac, 2007). A survey was sent to each of the 178 subjects to ascertain the current status of (a) headaches (frequency, duration, intensity), (b) (self-)treatment of headaches, (c) application of self-hypnosis skills for headache relief, and (d) attitudes and beliefs regarding the use of self-hypnosis for headaches and/or other aspects of their lives.

Four individual mailings were sent over a 6-month period. The anonymous survey instrument and methodology were approved by the University of Minnesota’s Institutional Review Board for Human Subjects Research and by the Institutional Review Board of Children’s Hospitals and Clinics–Minneapolis.

As described in the retrospective review of this population (Kohen & Zajac, 2007), these patients represent a self-selected population who were referred either because medication or other treatments that they had been using were not providing adequate relief for their recurrent headaches and/or because their parents did not wish to continue giving medication. All patients were taught self-hypnosis for self-regulation (Kohen & Zajac).

Experiential training in self-hypnosis was typically and consistently accomplished within three to four visits; i.e., all patients clinically demonstrated comfort and competency in doing and applying self-hypnosis within four visits. (Overall the number of visits ranged from as few as 1 to as many as 20.) The first visit focused on understanding the patient’s history in the context of developing a positive rapport, emphasizing the value of self-monitoring toward the development of self-regulation, and clarifying understanding of hypnosis as an alternative state of awareness in which an individual develops heightened concentration on some idea or image for the purpose of realizing a goal and/or resolving a problem (Olness & Kohen, 1996). Training in hypnosis and self-hypnosis began at the second visit.

*Induction*

Induction of hypnosis typically was easily begun with an invitation to the child or adolescent to focus on favorite-place imagery (Olness & Kohen, 1996) using any of their several favorite activities.
**Intensification**

Intensification or deepening of hypnosis followed with suggestions for multisensory imagery and/or progressive relaxation (e.g., head to toe or toe to head).

**Therapeutic Hypnotic Suggestions**

These were offered for control of HA as a menu from which the child could choose; for example:

> When you have a headache, picture in your mind that comfort scale from 0 to 12 on which you measure your headache. . . . Notice what number it’s on, perhaps 8 or 6 or 3 or 9 or 7 . . . and then watch the number go lower. Maybe you’ll do that as though you were on an elevator . . . so if your headache is a 7, push the button to ride down to 6, and then 5 . . . and . . . then . . . 4 . . . and . . . then . . . all the way to 1 or 0. Or maybe you’ll just imagine that you are somewhere where you have never had a headache, or maybe you’ll notice the shape and color of your headache in your mind and in another part of your mind you’ll see the color and shape of happy and comfortable . . . and you can watch the headache shape get smaller and smaller and smaller while the happy and comfort shape gets bigger and bigger until it fills the screen in your imagination. Or probably you’ll have a few other ways in your mind. Whichever works best for you is the best for you.

Before conclusion of the first hypnotic session, all patients were taught how to do self-hypnosis at home and encouraged to practice this two to three times daily.

At the third visit, patients were asked about their experience of practicing self-hypnosis at home and additional practice and reinforcement was accomplished. Fourth and/or subsequent visits included analogous reinforcement.

**Self-Monitoring**

At their first visit each child/adolescent was introduced conceptually to a self-monitoring approach using a “comfort scale” from 0 to 12 (as illustrated with a 12-inch wooden ruler) on which to self-rate HA intensity with 0 = no HA and 12 = the worst HA you can imagine. Zero to 12 was selected because of its familiarity to a ruler.

Pretreatment HA history was obtained utilizing this 0- to 12-scale as both an anchor and a context for obtaining information regarding severity/intensity, triggers, circumstances, and techniques and their effectiveness for relief.

Integral to learning self-hypnosis, young people were taught how to apply their self-hypnosis techniques quickly and easily either at the privacy of their desk in school, or, as needed, in a brief period (15 or
20 minutes) of quiet in the nurse’s office or comparable quiet space at school.

Self-monitoring was reinforced at each visit. Each patient maintained a diary monitoring frequency, intensity, and duration of HA using the scale twice daily.

During follow-up visits, subjects were offered the opportunity to have an office practice session audio taped to have a cassette to use at home to facilitate daily self-hypnosis practice. This opportunity was offered only after the child demonstrated comfort with and effectiveness applying self-hypnosis at home. No one was given an audiotape of a first or second hypnosis session. Commonly, tapes were given at the third or fourth (or later) session if desired. Preparation of a tape was at the discretion of the patient (and specifically not at the discretion of the clinician or parent) (Kohen & Zajac, 2007).

Outcome Measures

Outcomes included intensity, frequency, and duration of headaches after self-hypnosis, reported relief with use of self-hypnosis, and spontaneous application of self-hypnosis skills to other problematic areas in their lives.

Results

Of the 178 surveys mailed, 44 surveys (25%) were returned undeliverable and efforts to identify current addresses were unsuccessful. Of the remaining 134, which did not return undeliverable, 60 (45%) surveys were returned. Fifty-two returned surveys (39% of the original sample) were complete and are the basis of this report. The eight (8) unused surveys were incomplete and are not included.

Of the 52 respondents, 36 were female (69%) and 16 male (31%). The time from their most recent clinic visit for headaches varied from 2 to 15 years. The average duration since their last visit was 11.3 years. The age distribution of participants is shown in Table 1.

Subjects’ reported age of onset of headaches ranged from 3 to 15 years with an average of 8.2 years. The mean age at the time of survey completion was 19.3 years, with an age range from 10 to 28 years. Eighty-nine percent were over 15 years of age, and 54% were 19 years or older when they completed the survey (see Table 2). Forty-four percent (44%, 23/52) reported a decrease in frequency of headaches over time, and 31% (16/52) reported a decrease in severity of headaches. Twelve percent said that headaches don’t last as long as they did before learning self-regulation, and 14% reported that they no longer have headaches. Almost a third (32.7%, 17/52) reported a belief that
doing self-hypnosis prevents headaches; 35% (18/52) believe that self-hypnosis gets rid of headaches faster than medication. Fifty-six percent (29/52) report self-hypnosis reduces the intensity of discomfort, and 58% (30/52) report self-hypnosis reduces discomfort by reducing duration of headaches. Half of respondents (26/52) added open-ended comments about the value and application of self-hypnosis to other aspects of their lives. Eighty-five percent (44/52) report relief from self-hypnosis when they have a headache, more relief reported from any other treatment modality. These spontaneous comments, i.e., “what the patients say,” represent perhaps the most important, informing, even compelling part of this report. Comments were grouped into several categories (Tables 3–6).

### Table 1

<table>
<thead>
<tr>
<th>Age Distribution of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>13</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>16</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>24</td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td>27</td>
</tr>
<tr>
<td>28</td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at Onset of Headache</td>
<td>3–15 years</td>
<td>8.2 years</td>
</tr>
<tr>
<td>Age at Survey Responsea</td>
<td>10–28 years</td>
<td>19.3 years</td>
</tr>
<tr>
<td>Years since last Visit</td>
<td>2–15 years</td>
<td>11.3 years</td>
</tr>
</tbody>
</table>

*Note.* Sex of Respondents: Male, 16; Female, 36.

*a*88.5% over 15 years; 54% > 19 years.
Table 3
Quality of Headaches

<table>
<thead>
<tr>
<th>Since Learning Self-Hypnosis . . .</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Frequency) “I still have headaches, but not as often as I did before I first learned self-regulation.”</td>
<td>23/52 (44.2 %)</td>
</tr>
<tr>
<td>(Severity) “I still get headaches, but not as bad as before I first learned self-regulation.”</td>
<td>16/52 (30.8 %)</td>
</tr>
<tr>
<td>(Duration) “I still get headaches, but they don’t last as long as before I first learned self-regulation.”</td>
<td>6/52 (11.5 %)</td>
</tr>
<tr>
<td>“I don’t get headaches any more.”</td>
<td>7/52 (13.5 %)</td>
</tr>
<tr>
<td>“I still get headaches, but only ‘regular’ ones, no more migraines.”</td>
<td>11/52 (21.2%)</td>
</tr>
</tbody>
</table>

Table 4
Respondent Beliefs — I

<table>
<thead>
<tr>
<th>Belief</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that doing my exercise (relaxation, self-regulation) helps to prevent headaches (keep them from coming).</td>
<td>17/52 (32.7%)</td>
</tr>
<tr>
<td>I think that doing my exercise (relaxation, self-regulation) gets rid of headaches faster than medicine.</td>
<td>18/52 (34.6%)</td>
</tr>
<tr>
<td>I think that doing my exercise (relaxation, self-regulation) makes headaches less bad by not hurting as much.</td>
<td>29/52 (55.8%)</td>
</tr>
<tr>
<td>I think that doing my exercise (relaxation, self-regulation) makes headaches less bad by not lasting as long.</td>
<td>30/52 (57.7%)</td>
</tr>
<tr>
<td>I think that doing my exercise (relaxation, self-regulation) makes headaches worse.</td>
<td>0/52</td>
</tr>
</tbody>
</table>

Table 5
Respondent Beliefs — II

<table>
<thead>
<tr>
<th>“Now if I get a headache, I get relief from:”</th>
<th>Positive Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxation/Mental Imagery (Self-Hypnosis)</td>
<td>44/52 (84.6%)</td>
</tr>
<tr>
<td>Rest</td>
<td>38/52</td>
</tr>
<tr>
<td>Sleep</td>
<td>15/52</td>
</tr>
<tr>
<td>Shower</td>
<td>13/52</td>
</tr>
<tr>
<td>Cool cloth</td>
<td>12/52</td>
</tr>
<tr>
<td>Medication</td>
<td></td>
</tr>
<tr>
<td>Acetaminophen or Ibuprofen</td>
<td>38/52</td>
</tr>
<tr>
<td>Sumatriptin</td>
<td>7/52</td>
</tr>
<tr>
<td>Amitryptaline</td>
<td>2/52</td>
</tr>
</tbody>
</table>
Table 6
Reasons for Using Self-Hypnosis

<table>
<thead>
<tr>
<th>Reason</th>
<th>Some</th>
<th>A Lot</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>To relax when stressed/tense</td>
<td>23</td>
<td>9</td>
<td>32 (62%)</td>
</tr>
<tr>
<td>To be calm before or during exams</td>
<td>18</td>
<td>3</td>
<td>21 (40%)</td>
</tr>
<tr>
<td>To be calm before or during sports</td>
<td>14</td>
<td>2</td>
<td>16 (31%)</td>
</tr>
<tr>
<td>To be calm before music performance</td>
<td>6</td>
<td>3</td>
<td>9 (17%)</td>
</tr>
<tr>
<td>To fall asleep easily</td>
<td>22</td>
<td>8</td>
<td>30 (58%)</td>
</tr>
<tr>
<td>To reduce worries</td>
<td>18</td>
<td>3</td>
<td>21 (40%)</td>
</tr>
<tr>
<td>To be less scared</td>
<td>8</td>
<td>1</td>
<td>9 (17%)</td>
</tr>
<tr>
<td>To relieve pain</td>
<td>10</td>
<td>12</td>
<td>22 (42%)</td>
</tr>
</tbody>
</table>

Several respondents said that they used self-hypnosis to relax when stressed, such as “relaxing, stressed out, worried,” “When stressed out at home or work,” or “when preparing for a job interview.” Some focused on the use of self-hypnosis to relieve or control pain, such as “for headaches to reduce pain,” “for oral surgery.” Others applied their self-hypnosis skills to sports performance, including noting “for long distance running and for falling asleep later,” “before sports [competition] and when I’m stretching.” Several specifically referenced the use of self-hypnosis for specific situations of anxiety: “to be less scared of heights; and to calm down if I’m excited,” “school issues,” or “panic attacks.”

Most respondents who added their own narrative described not only multiple applications but also included aspects of how and when they apply their self-regulation skills. Examples are included (italics are mine) in the following cases.

**Case 1**
From a 17-year-old woman:

I can do it anywhere at any place at any time. I will do it in my classes sitting up and still try to listen. It has became almost naturally [sic]. Sometimes I have to think about it but most of the time it just happens. I will sometimes decide to go lay down and try it again. . . . I use it for any pain I have. I use it for physical pain but I can also use it for “pain” I feel when I have problems at school.

**Case 2**
A 16-year-old boy wrote:

I imagine myself walking thru the woods. I do my self-hypnosis wherever I am when I need to do it. I listen to the air currents in the room,
and I imagine that I’m chasing Magic (my uncle’s dog) through the woods. When I catch the dog I know my headache is gone. I also use self-hypnosis when I’m really nervous. It helps me calm down so I can concentrate on whatever I need and am doing. Sometimes I use it when I am angry. It helps me calm down.

Case 3

Another 17-year-old woman described using self-hypnosis to ease discomfort both from migraine and from inflammatory bowel disease: “It doesn’t matter where I am. I think about the constricted blood vessels in my brain and try to relax/expand them again. Sometimes I think of an ocean or a forest. Also, to control my colitis.”

Case 4

From a 21-year-old woman who learned self-hypnosis when she was 8: “I usually practice before I go to bed at night. I use my tape that you made me 13 years ago. I use the imagery on the tape.”

Case 5

A 20-year-old man wrote about the self-hypnosis he learned when he was 12:

I imagine finding a little ball of pain and spitting it out. . . . I lay in my bed and think about the pain. Then I do everything I can to forget it, or sometimes I imagine destroying the pain. Between these 2 methods I can get the job done. If you’d like to know more you can call me!

Case 6

From a 24-year-old woman who learned self-hypnosis when she was 13:

Lay down in a dark room and close my eyes and picture myself standing on a beach in the sun. As I begin to walk down the beach there are numbers written in the sand beginning with whatever number my headache is currently at. I use my feet to erase the numbers. When I reach zero I sit or lay down on the beach and focus on what a pain-free head feels like. Usually I fall asleep at this point. I use my scene now whenever I feel overwhelmed . . . even if it’s not headache related. . . . I simply begin my numbers at the point of stress rather than my pain scale, and I’ve also felt an aura coming on and used them to calm myself down into relaxation before a full aura starts. I am so grateful for teaching me how to deal with my migraines. I don’t know how I would have survived them without
your advice and “coaching.” I am so happy and proud to say I’ve been migraine-free for eleven years! Thank-you for doing wonderful work!

Case 7

A 17-year-old boy wrote:

I don’t imagine anything but merely repeat over and over again “You are tired, relaxed, calm, etc.” or, as I did a couple of days ago with an oral surgery, I concentrated on how my toe felt in my left foot and on keeping my heartbeat slow.

Case 8

A 28-year-old male wrote that

I actually pulled out the original imagery audiotapes made for me in our first visits together when I was 17, at the age of 23 so I could re-learn how to make my body relax. For the last 4 years I have had very few actual migraine headaches, reduced the intensity of stress headaches, and learned to better manage stress in general, due in no small part to my sessions.

Case 9

A 25-year-old woman wrote:

I begin by sitting in my bed with some relaxing music playing softly. My eyes closed and I begin to visualize a staircase. The staircase leads to a hot tub and after relaxing my hot tub leads me to a meadow and at the end is a pond with a seat. While at the pond I concentrate on relieving any pain I might have and completely relax. I use it on a daily basis to unwind after work or just a long day. I have also used it for sleep. I had a very complicated pregnancy and quite a bit of pain, and imagery helped me to control the pain. The pain never ceased but it was tolerable with the imagery. Not even medication helped it. I wanted to thank you for the wonderful gift you gave me. Mental imagery helped me through a very difficult pregnancy. Between kidney surgery and a 4-month migraine which no medication could help, imagery helped me to control pain to being manageable versus bed-ridden. I also used imagery on bed rest to help with my back pain. Again I want to thank you for this gift and send my best wishes to you.

Implications

In the review of this original cohort (Kohen & Zajac, 2007), 88% of youth reported a decrease in HA frequency, with a decrease from 4.5 per week to 1.4 per week ($p < .01$). Additionally, the average
self-rating of intensity decreased from a self-rating of 10.3 (on a 0- to 12-scale) to 4.7 ($p < .01$); and children and adolescents who learned self-hypnosis reported that duration of HA was shorter than before learning self-hypnosis, decreasing from an average of 23.6 hours to 3.0 hours ($p < .01$), with 89% of patients reporting decreased duration. A quarter of the total sample (25.7%) reported becoming and remaining completely HA-free after learning self-hypnosis (Kohen & Zajac, 2007).

While this confirmed our long-held clinical impression (Olness et al., 1987; Olness & Kohen, 1996) and oft-described efficacy of self-hypnosis for management of headaches (Eccleston et al., 2003; McGrath, 1999; Olness & Kohen, 1996; Sugarman, 2007a), it did not inform us about the potential for the enduring value of self-regulation training, so accordingly this survey was conducted. While we have had substantial anecdotal information affirming the ongoing use and value of self-regulation training by young patients who call back or return many years later for “booster” training or for help with a new problem, no previous study has examined the long-term follow-up beliefs and attitudes of a population of children learning self-hypnosis.

Beyond making delightful reading, these spontaneous descriptions also affirm the apparent enduring value of long-past clinical encounters and describe what seems to be a natural tendency of youth to continue to use and adapt self-hypnosis strategies for their benefit over time. Moreover, their narratives reflect their use of creative imagination to not only continue to apply their skills for relief of headache but also to adapt and modify their strategies to successfully modulate or eliminate other difficult life experiences as described (pain, stress, adaptation, anxiety). Descriptions of comparable, long-term value of self-hypnosis training for children and adolescents with headaches can be found in individual case reports. Examples include the cases of Anna (Kohen, 2000); Matthew, 16 years old, as depicted in the educational videotape “Imaginative Medicine-Hypnosis in Pediatric Practice” (Sugarman, 2007b); Larry, 14 years old (Sugarman); and Allison, 10 years old (Sugarman).

An obvious limitation of this follow-up report is that the survey response rate was 45%, and, as with any survey, we have no information regarding those from whom no response was received. It could be that those who had the most favorable responses to self-hypnosis or are doing generally well were more likely to respond to the survey. We do know, however, that they too were very successful in applying newly learned self-hypnosis skills to the reduction of frequency, severity, and duration of headaches (Kohen & Zajac, 2007).

While this study is limited by the absence of a control group per se, and we cannot determine if improvement in headache is due directly to previous self-hypnosis training and ongoing self-hypnosis use or to the
passage of time, nonetheless the youths’ self-attribution of the value of self-hypnosis to themselves is compelling.

Youth in this review were patients who despite conventional or traditional care sought additional help for HA management and were very successful in learning and applying self-hypnosis skills to improve, to relieve, and in some cases to eliminate headaches (Kohen & Zajac, 2007). In this survey group they also effectively and spontaneously transferred their self-regulation skills to help them in other ways in their lives. While we are familiar with the adage “success breeds success,” the participants in this survey seem to be not only affirming this but also to be telling us that success breeds success even without specific training or direction in how or when to apply the original skill to a new challenge or problem. We wonder how much greater success might be possible in broadening the effects of learned self-regulation skills if or when the possibility and potential for generalization of skills was taught as part of original skill training and development? This remains to be seen from additional prospective controlled studies and from larger, long-term follow-up studies of other groups of children who have learned and successfully applied self-hypnosis skills for other problems.We recommend that clinicians providing self-hypnosis training to their patients assure themselves and their patients and their families that they have experienced specific workshop training in pediatric clinical hypnosis.2

**Discussion**

While self-hypnosis consisting of relaxation/mental imagery is a self-regulation technique that can be very effective in contributing positively to preventing and improving chronic recurrent headaches in children and adolescents, it also appears to be a welcome and trusted skill that young people can and do effectively apply to other challenges and problems in their lives. It may well be that all children could benefit from learning self-regulation skills such as self-hypnosis early in their lives as a generic stress-management tool that they could utilize to apply to a variety of stressors they may encounter in the context of normal development and maturation. As such opportunities are made available to young people as part of therapeutic interventions and/or

2Additional information regarding workshop training in Pediatric Clinical Hypnosis is available through the National Pediatric Hypnosis Training Institute (for information, contact www.nphti.org), the American Society of Clinical Hypnosis (www.asch.net), or the Society for Clinical and Experimental Hypnosis (www.sceh.us).
in the context of the classroom, drama groups, or sports activities, these experiences should be carefully studied prospectively and over time to more clearly understand the manner in which this efficacy evolves.

References


Long-Term Follow-Up bei Selbsthypnostraining bei wiederkehrenden Kopfschmerzen: Was die Kinder darüber sagen

Daniel P. Kohen


Suivi à long terme de la formation en autohypnose pour soulager les maux de tête récurrents: Ce qu’en disent les jeunes

Daniel P. Kohen

Résumé: L’auteur a expédié un questionnaire à 178 jeunes qui lui avaient antérieurement été envoyés pour hypnose aux fins de soulagement de maux de tête. Ce questionnaire demandait aux répondants de décrire l’état actuel de leurs maux de tête de même que d’autres éléments connexes: traitement, utilisation de l’autohypnose, intensité, fréquence et durée des maux de tête après l’autohypnose, application de l’autohypnose à d’autres problèmes, et attitudes vis-à-vis de l’autohypnose et du stress quotidien. Des 134 questionnaires envoyés, 52 sont revenus remplis. Quelques années après le traitement initial, 85 % (44/52) des répondants ont indiqué qu’ils avaient éprouvé un soulagement permanent grâce à l’autohypnose, 44 % (23/52) ont signalé une diminution de la fréquence de leurs maux de tête, 31 % (16/52) ont remarqué une diminution de leur gravité, et 56 % (29/52) ont signalé que l’autohypnose réduisait l’intensité de leurs maux de tête. La moitié des répondants (26/52) ont insisté sur l’utilité de l’autohypnose pour faire face au stress quotidien. Chez les enfants et les adolescents, l’hypnose est associée à une diminution significative des maux de tête, ainsi qu’à un effet positif.
durable ressenti plusieurs années après la formation en autohypnose. Les résultats de cette recherche indiquent que les jeunes appliquent communément et spontanément l’autohypnose à l’atténuation d’autres problèmes dans leur vie.

**Johanne Reynault**
*C. Tr. (STIBC)*

**Seguimiento a largo plazo de la autohipnosis para dolores de cabeza recurrentes: ¿Qué dicen los niños?**

Daniel P. Kohen

Resumen: El autor envió encuestas a 178 jóvenes consecutivos referidos con anterioridad para tratamiento con hipnosis para el dolor de cabeza. La encuesta preguntó sobre el estado actual de los dolores de cabeza: tratamiento, aplicación de la auto-hipnosis, intensidad del dolor de cabeza, frecuencia, duración después de la auto-hipnosis, generalización de la auto-hipnosis a otros problemas, y las actitudes con respecto a la auto-hipnosis y el estrés de la vida. De 134 encuestas entregadas, 52 fueron completadas. Años después del tratamiento, el 85% (44/52) informó alivio continuo con la auto-hipnosis, un 44% (23/52) disminución de la frecuencia dolor de cabeza, 31% (16/52) mencionó menor severidad, y 56% (29/52) que la intensidad de la auto-hipnosis redujo la intensidad del dolor de cabeza. Muchos (26/52) hicieron hincapié en el valor de la auto-hipnosis para problemas de la vida. En los niños y adolescentes, la auto-hipnosis se asocia con una mejoría significativa de los dolores de cabeza y con un efecto positivo duradero durante muchos años después del entrenamiento. Los resultados sugieren generalización común y espontánea de la auto-hipnosis de los jóvenes para la modulación de otros problemas en sus vidas.

**Etzel Cardeña**
*Lund University, Sweden*