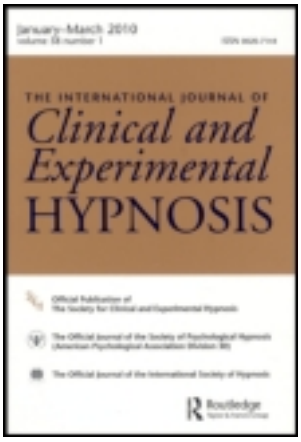

International Journal of Clinical and Experimental Hypnosis
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/nhyp20

Hypnosis and Dental Anesthesia in Children: A Prospective Controlled Study

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Published online: 25 Aug 2011.

To cite this article: Adeline Huet, Marie-Madeleine Lucas-Polomeni, Jean-Claude Robert, Jean-Louis Sixou & Eric Wodey (2011) Hypnosis and Dental Anesthesia in Children: A Prospective Controlled Study, International Journal of Clinical and Experimental Hypnosis, 59:4, 424-440, DOI: 10.1080/00207144.2011.594740

To link to this article: http://dx.doi.org/10.1080/00207144.2011.594740

Intl. Journal of Clinical and Experimental Hypnosis, 59(4): 424–440, 2011

ISSN: 0020-7144 print / 1744-5183 online
DOI: 10.1080/00207144.2011.594740

Routledge
Taylor & Francis Group

HYPNOSIS AND DENTAL ANESTHESIA IN CHILDREN: *A Prospective Controlled Study*[1]

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Abstract: The authors of this prospective study initially hypothesized that hypnosis would lower the anxiety and pain associated with dental anesthesia. Thirty children aged 5 to 12 were randomly assigned to 2 groups receiving hypnosis (H) or not (NH) at the time of anesthesia. Anxiety was assessed at inclusion in the study, initial consultation, installation in the dentist's chair, and at the time of anesthesia using the modified Yale preoperative anxiety scale (mYPAS). Following anesthesia, a visual analogue scale (VAS) and a modified objective pain score (mOPS) were used to assess the pain experienced. The median mYPAS and mOPS scores were significantly lower in the H group than in the NH group. Significantly more children in the H group had no or mild pain. This study suggests that hypnosis may be effective in reducing anxiety and pain in children receiving dental anesthesia.

Dental anesthesia causes anxiety linked to the fear of needles as well as the use of other distressing instruments, leading to fear of dental care and behavior management problems that affect 9% of children

Manuscript submitted March 5, 2010; final revision accepted November 23, 2010.
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(Klingberg & Broberg, 2007). Dental fear/anxiety seems appears to be more frequent in children who develop internalizing disorders (anxiety, depression, etc.), while dental behavior management problems are primarily due to previous negative experiences with dental care (Klingberg & Broberg, 2007).

The use of syringes and/or needles is highly stressful for both children and adults (Uman, Chambers, McGrath, & Kisely, 2006) and is painful in many medical procedures for children (Dufresne et al., 2010; Walco, 2008). Needle phobia in particular affects about 10% of the general population (Uman et al., 2006) and up to 19% of children between 4 and 6 years of age (Hamilton, 1995). Children are dental anesthesia-fear prone (Versloot, Veerkamp, & Hoogstraten, 2008b), while performing dental anesthesia on children is considered the most stressful act by 16% of dentists (Dower, Simon, Peltier, & Chambers, 1995). Younger and highly anxious children are the most likely to be afraid of the dentist, particularly during dental anesthesia (Klingberg & Broberg, 2007; Versloot et al., 2008a). Higher levels of anxiety in children are associated with higher levels of pain reported during dental anesthesia, whatever the site anesthetized or the method used (Kuscu, & Akyuz, 2008; Versloot, Veerkamp, & Hoogstraten, 2005; Versloot et al., 2008a). Pain reported by children during dental anesthesia is also associated with previous experiences of dental anesthesia (Versloot et al., 2008a). Other causes of stress include lack of control by the dentist during dental procedures and sensory stimuli (visual, olfactory, tactile, auditory) (Taani, El-Qaderi, & Abu Alhaija, 2005).

General anesthesia may be the solution in extreme cases. Various techniques can be used to make the patient more comfortable during a dental treatment. Conscious sedation with nitrous oxide or sedative drugs has several advantages but does not always resolve the problem. Some methods require monitoring of the patient after the intervention and may therefore not be compatible with routine use in dental surgeries or must be carried out under medical supervision (Dworkin, Chen, & Clark, 1983; Faytrouny, Okte, & Kucukyavuz, 2007; Zanette, Facco, & Manani, 2008).

Other techniques such as behavioral therapy and hypnotherapy have thus been developed to overcome these limitations (Moore, 2002). Hypnosis is defined as a state of modified consciousness induced in one person by another. Classical hypnosis is authoritative, stereotypical, and direct and may be met with resistance. American psychiatrist Milton Erickson developed a more permissive, accommodating, and indirect approach that is often called Covert or Conversational Hypnosis. This technique is easy to adapt for children, who have a natural talent for playing and who find it easy to enter into an imaginary world. Dental hypnosis as described by Erickson has been used for many types of interventions, including conservative treatments,

dental extractions, and orthodontics (Enqvist, Von Konow, & Bystedt, 1995; Enqvist & Fischer, 1997; Finkelstein, 2003; Hermes, Truebger, Hakim, & Sieg, 2005; Moore, 2002; Patel, Potter, & Mello, 2000; Shaw & Niven, 1996; Trakyali, Sayinsu, Müezzinoglu, & Arun, 2008; Wood & Zadeh, 1999).

Little is known about the efficacy of hypnosis in reducing anxiety and pain during dental anesthesia in children (Al-Harasi, Ashley, Moles, Parekh, & Walters, 2010). Based on the hypothesis that Erickson hypnosis helps lower both the anxiety and pain associated with dental anesthesia involving primary teeth, the aim of this study was to prospectively assess, on a small cohort of subjects, the effect of Ericksonian hypnosis on the anxiety and pain experienced by children during dental anesthesia for restorative treatments of primary teeth.

Method

Population

We studied children who attended the Department of Pediatric Dentistry at Rennes University Hospital for dental treatments requiring local anesthesia. The exclusion criteria were allergy to local anesthetics, psychological impairment, specific medical illnesses, previous severe medical conditions that may have induced the fear of any medical environment, previous experience with hypnosis, tooth extraction or any other oral surgery, deep endodontic treatments (further than the coronal pulp), refusal by the parents and/or the child, and deafness. The inclusion criteria were dental restorative treatments or pulpotomies of primary teeth (canines and molars) requiring dental anesthesia by buccal infiltration only. The study was approved by the ethics committee of Rennes University Hospital. Informed consent was obtained from both the children and their parents.

Procedure

This study was performed over a 3-month period. Children included in the prospective study were aged 7 to 12 and attended the Department of Pediatric Dentistry during this 3-month period. They presented an indication for treatment under local anesthetic at the first consultation (Figure 1). Fifteen consecutively selected boys and 15 consecutively selected girls were randomly assigned by lottery to groups with (H) or without (NH) hypnosis.

All hypnotherapy sessions were carried out by a single anesthesiologist experienced in Ericksonian hypnosis (MML). All anxiety score assessments and interviews with the children were carried out by a single experienced pediatric dentist (AH), who was not involved in the

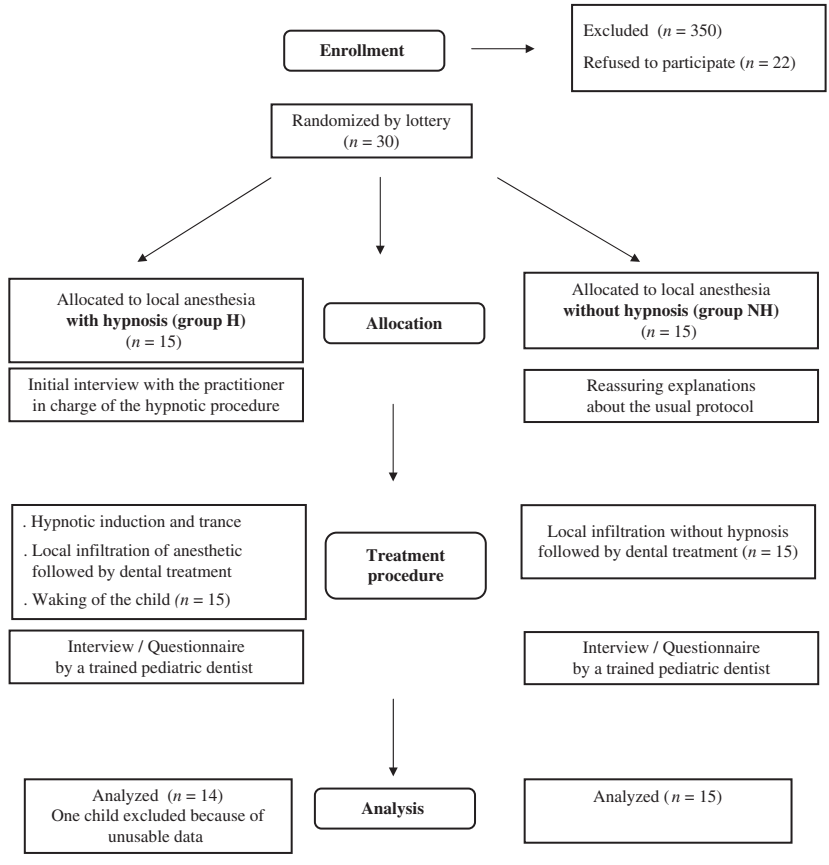

Figure 1. **Flow diagram of participants at each stage of the study.**

hypnotic, anesthetic, and dental treatment process. All dental anesthesia and treatments were performed by fifth-year dental students in the Department of Pediatric Dentistry who had at least 2 years of clinical training experience.

The anxiety of each subject was assessed using the modified Yale preoperative anxiety scale (mYPAS; Kain et al.,1997) during the initial interview (mYPAS 1) (Appendix A). This observation-based test contains 22 items grouped into five categories (activity, verbal behavior, expression, alertness, and attitude toward parents) that allow a child's anxiety levels to be scored from 0 (no anxiety) to 100 (maximum anxiety). Information on the children's favorite activities and their family and school life was also obtained for each child in the H group during the initial consultation.

The anxiety of each subject was then assessed during the treatment session: on arrival in the waiting room (mYPAS 2), in the dentist's chair (mYPAS 3), and at the time of the dental anesthesia (mYPAS 4).

The dental anesthesia-related pain or discomfort experienced by the children was assessed after the treatment using a self-assessment test (Visual Analogue Scale, VAS, from 0 [no pain] to 10 [maximum pain]) and at the time of anesthesia using a modified objective pain score (mOPS; adapted from Hannallah, Broadman, Belman, Abramowitch, & Epstein, 1987). The mOPS scale includes five criteria ranked between 0 and 2 that correspond to behavior (crying, anxiety, movements) and verbalization of pain. This scale provides a score of 0 (no pain) to 10 (maximum pain) (Appendix B).

The same procedure was used for all the children in the H group. Hypnosis was performed following the usual three-step Ericksonian procedure. Hypnotic induction began once the subject was seated in the dentist's chair. Speaking slowly in a monotone voice, the hypnotherapist made the child focus on her (hypnotherapist) voice and on images to establish a "hypnotic relation," first taking into account items in the room and then using suggestions and stories. The suggestions or stories used during the induction were linked with things the child was interested in and were chosen according to the initial interview. The child could express any discomfort using a predefined code. All external interventions (e.g., examination with the mirror, placement of towels, injection) were carried out with agreement of the hypnotherapist, who incorporated these interventions in her explanations to the child. A hypnotic trance was considered to have been achieved when the hypnotherapist noted muscular relaxation, regular breathing, and immobility (cataleptic state). The dental anesthesia and treatments were then performed. The hypnotherapist continued speaking to the child to maintain the state of trance. At the end of the treatment session, the hypnotherapist gradually "awoke" the child by speaking a little bit louder and using the items in the room to help the child come back to the initial conscious state.

The same general procedure was also used for all the children in the NH group, except for the hypnosis. The students performed the dental anesthesia and treatment during a session the day after the children and parents had agreed to participate in the study. Dental anesthesia was performed using the usual protocol of the Department of Pediatric Dentistry. The children in the NH group were encouraged to breathe deeply during the anesthesia procedure.

The local infiltration procedure for both groups was performed using a standard metal syringe without electronic assistance after applying a topical anesthetic for 1 minute to the area where the local anesthetic (4% articaine + 1:200 000 epinephrine; Alphacaine^{TM}, Laboratoires Septodont, Saint-Maur-des-fossés, France) would be injected.

Statistical Analysis

Results were analyzed using nonparametric tests. Quantitative variables (mYPAS and mOPS) were compared using the Mann Whitney test, and qualitative variables (age, sex ratio, history of dental anesthesia, anxiety levels, VAS scores) were analyzed using the chi-square test. Comparisons were considered significant at $p < .05$.

Results

Thirty children were initially included in the study (Group H: $n = 15$; Group NH: $n = 15$). It was not possible to analyze the data for 1 child in Group H (document not correctly completed), who was excluded from the study, reducing the number of children included in the statistical analysis to 29 (Figure 1).

There were no significant differences between the two groups in terms of age, sex ratio, history of dental anesthesia, or anxiety levels at the initial consultation (mYPAS 1) or the beginning of the second session (mYPAS 2, mYPAS 3) (Tables 1 and 2).

Table 1
Characteristics of the Population

		H	NH
Age (median [range])		8 (5–12)	9 (5–12)
Girls / boys		8 / 6	5 / 10
Previous experience of	Y	6 (21%)	6 (21%)
dental anesthesia	N	8 (27%)	9 (31%)
Memory of	–1	4 (33%)	3 (25%)
previous experience	0	0 (0%)	2 (17%)
	+1	2 (17%)	1 (8%)

Note. Y: Yes N: No; –1: Negative memory of previous experience; 0: No memory of previous experience; +1: Positive memory of previous experience.

Table 2
Preoperative Anxiety

	H x (range)	NH x (range)	
mYPAS 1	33 (23–78)	30 (21–69)	*ns*
mYPAS 2	23 (23–56)	28 (23–100)	*ns*
mYPAS 3	22 (22–45)	35 (22–66)	*ns*

Note. ns: not significant ($p > .05$).

When approaching the dental chair on the day of the dental anesthesia session, 12/29 and 15/29 children had mYPAS3 scores below 24 and 30, respectively, that were previously considered thresholds in child anxiety (Calipel, Lucas-Polomeni, Wodey, & Ecoffey, 2005; Kain et al., 1997), with no difference between Groups H and NH.

Anxiety scores during the dental anesthesia procedure (mYPAS 4) were significantly lower in the H group than in the NH group ($p = .0021$), with median values of 23 (H) and 50 (NH), respectively (Figure 2). Significantly more children had mYPAS4 scores under 24 and 30 in the H group than in the NH group, 12/14 versus 4/15 ($p = .0047$), and 12/14 versus 5/15, respectively, ($p = .0129$).

Mean mOPS scores were also significantly lower in the H group than in the NH group, 1.07 ($SD = 1.05$) versus 2.86 ($SD = 2.16$), $p < .05$, with a smaller range of values (0–4 vs. 0–8) and lower median values (0 in the H group and 3 in the NH group) (Figure 3). Scores above 2 were more common in anxious children, whatever the anxiety threshold considered (Table 3).

Significantly more children in the H group than in the NH group said that they did not feel anything (VAS = 0; 4/14 vs. 2/15; $\chi^2 = 10.08$; $df = 1$; $p = .001$). A VAS cutoff score of 3 was used to define strong pain. This type of pain (VAS $\geq$ 3) was reported significantly more frequently by children in the NH group than in the H group (9/15 vs. 2/14; $\chi^2 = 6.43$; $df = 1$; $p = .0112$). The maximum pain score reported by one child in the H group was 5. In contrast, values of at least 7 were reported by 9 children in the NH group. No correlation was observed between high VAS scores (VAS $\geq$ 3) and anxiety as expressed by mYPAS 3 and mYPAS4 (Table 3).

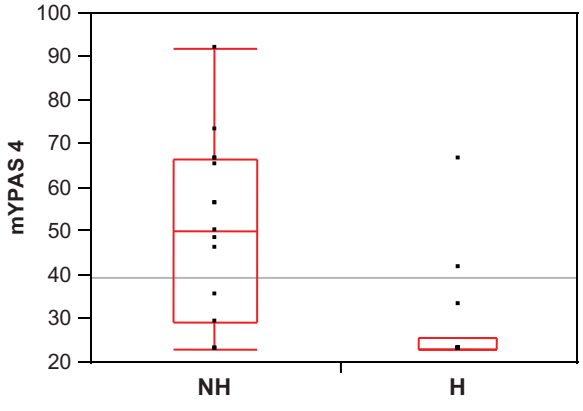

Figure 2. **Anxiety scores during the anesthesia procedure (mYPAS 4).** ***Note*****. H = hypnosis group; NH = nonhypnosis group. (Color figure available online.)**

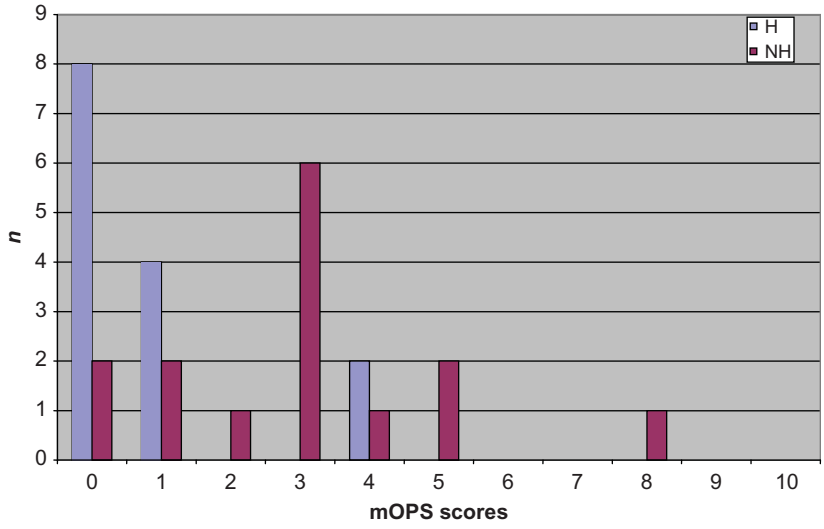

Figure 3. **Distribution of mOPS scores in both groups. *Note*. *n* = number of children; H = hypnosis group; NH = nonhypnosis group. Scores within bars are the number of children concerned. (Color figure available online.)**

Table 3
Statistical Relations Between Cutoff mYPAS values and mOPS and VAS Scores

	mOPS > 2	VAS > 2
mYPAS 3		
24[a]	0.0277[d]	0.0958[d]
30[b]	0.0411[e]	0.0930[e]
46.6[c]	0.0303[d]	0.2241[d]
mYPAS 4		
24	0.0155[e]	0.8845[e]
30	0.0030[d]	0.3292[e]
46.6	0.0032[d]	0.2498[d]

[a]mYPAS threshold value used by Calipel et al. (2005) to distinguish anxious children.
[b]mYPAS threshold value used by Kain et al. (1997) to define high anxiety among children.
[c]mYPAS value when the item score of 2 is noted in each of the five categories of the mYPAS assessment.
[d]Fisher exact test.
[e]Chi-square analysis.

Discussion

The present prospective study was intended to be a first step in demonstrating and tentatively quantifying the potential efficacy of Ericksonian hypnosis for reducing the anxiety and pain associated with dental anesthesia in children. In a recent meta-analysis review of hypnosis and dental treatments in children (Al-Harasi et al., 2010), only one out of the two papers selected discussed dental anesthesia and treatments (Gokli, Wood, Mourino, Farrington, & Best, 1994). This underlines the need for more information on this topic.

We studied a small cohort (29 children). There were no statistical differences in the anxiety experienced by the two groups at the beginning of the study, with slightly higher levels during the second session (mYPAS 2 and mYPAS 3) (Table 1), indicating that these children were representative of 91% of children according to Klingberg and Broberg (2007). When interpreting our results, it should be borne in mind that our study did not include the most anxious children, whose reaction to dental anesthesia is harder to modify (Klingberg & Broberg, 2007). Dental treatments were performed on primary teeth only and consisted of the usual restorative or endodontic treatments for these types of teeth, excluding deep endodontic treatments and tooth extractions that are more likely to induce fear and pain (Braithwaite cited by Al-Harasi et al., 2010; Klaassen, Veerkamp, & Hoogstraten, 2008; Tickle et al., 2009). Only buccal infiltrations were performed, which have been shown to be less painful than other types of dental anesthesia such as palatal infiltrations and mandibular nerve blocks for posterior mandibular permanent teeth (Fan, Chen, Yang, & Huang, 2009; Meechan, 2009; Milgrom, Coldwell, Getz, Weinstein, & Ramsay, 1997).

The dental anesthesia was performed by students. This may be considered a shortcoming of our study. However, these students had 2 to 3 years of clinical experience in dental anesthesia. Furthermore, the hypnosis was performed by a single trained operator who made sure that the care was uniform throughout the study. Our results thus have to be considered both with respect to these caveats and the prospective nature of the study.

Three methods that combined heteroevaluation (evaluation by someone else other than the child, mOPS, and mYPAS) and self-assessment (VAS) were used to analyze the preoperative anxiety and peroperative pain of the children. In particular, mYPAS can be used to take several criteria into consideration simultaneously (activity, verbal behavior, expression, alertness, attitude towards parents). It has already been shown to be an appropriate tool for assessing the anxiety of children during the perioperative period (Kain et al.,1997) and is highly

suitable for evaluating preoperative anxiety in children, notably during analyses of the effect of hypnosis (Calipel et al., 2005).

Our study demonstrated that hypnosis was effective in reducing preoperative anxiety in the group of children we assessed. The mean mYPAS score was 50% lower in the H group than in the NH group at the time of anesthesia. These results can be compared to those of a previous study where hypnosis was shown to have a positive impact on pediatric patients when local anesthetics were injected: less crying and decreased pulse rate (Gokli et al., 1994). Our results were also similar to those obtained using other means of sedation in patients with "dental fear" (Folayan, Faponle, & Lamikanra, 2002; Uldum, Hallonsten, & Poulsen, 2008), but the procedure did not involve the potential complications associated with pharmacological interventions. A recent study carried out in a pediatric general surgery unit also showed that mYPAS scores are significantly lower in children receiving hypnotherapy than in children receiving midazolam at the induction of general anesthesia (Calipel et al., 2005).

This confirms the efficacy and utility of hypnotic induction in controlling the preoperative anxiety in children and adults observed during other medical procedures (Rogovik & Goldman, 2007), particularly in situations where anxiety is linked to a fear of needles as shown in various literature reviews (Abramowitz & Lichtenberg, 2009; Accardi & Milling, 2009; Barabasz & Perez, 2007).

In our study, hypnosis modified the pain tolerance threshold, as shown by the mOPS and VAS scores, with 86% (12/14) of children from the H group compared to 40% from the NH group having a VAS score under 3. This value (VAS 3) is the threshold used for general anesthesia in children in the Department of Pediatric Surgery at the Rennes University Hospital. Children with pain levels above this threshold are considered to require the maintenance of or an increase in analgesia. Such effects on pain have already been described in adults for various medical procedures (Elkins, Jensen, & Patterson, 2007; Hammond, 2007; Montgomery, Duhamel, & Redd, 2000; Néron & Stephenson, 2007), for oral surgery (Enqvist et al., 1995; Enqvist & Fischer, 1997; Hermes et al., 2005), and for interventions outside the oral cavity in children (Butler, Symons, Henderson, Shortliffe, & Spiegel, 2005; Richardson, Smith, McCall, & Pilkington, 2006; Rogovik & Goldman, 2007), especially in procedures with children involving needles (Dufresne et al., 2010; Liossi & Hatira, 2003; Uman et al., 2006). In most cases, a decrease in both anxiety and pain in the populations studied was reported. Variations in anxiety and pain scores between children in our study also confirmed the differences in hypnotizability that have already been described in previous articles (Barabasz & Perez 2007; DiClementi, Deffenbaugh, & Jackson, 2007; Rogovik & Goldman, 2007; Sharav & Tal, 2004).

Conclusion

Given our results with respect to the small size of the cohort and the absence of highly anxious children, this prospective study suggested that hypnosis is an effective method for reducing the anxiety and pain associated with local anesthesia during dental treatments of children. Other studies are needed, with larger cohorts that include children with higher levels of anxiety, to confirm the potential benefits of this approach. Longitudinal studies are also needed to assess the intermediate and long-term effects of hypnosis on the attitude of patients to dental anesthesia.

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Appendix A
The m-YPAS Score

Activity

1. Looking around, curious, playing with toys, reading (or other age-appropriate behavior); moves around holding area/treatment room to get toys or to go to parent; may move toward operating room equipment
2. Not exploring or playing, may look down, fidget with hands or suck thumb (blanket); may sit close to parent while waiting, or play has a definite manic quality
3. Moving from toy to parent in unfocused manner, nonactivity-derived movements; frenetic/frenzied movement or play; squirming, moving on table; may push mask away or cling to parent
4. Actively trying to get away, pushes with feet and arms, may move whole body; in waiting room, running around unfocused, not looking at toys, will not separate from parent, desperate clinging

Vocalizations

1. Reading (nonvocalizing appropriate to activity), asking questions, making comments, babbling, laughing, readily answers questions but may be generally quiet; child too young to talk in social situations or too engrossed in play to respond
2. Responding to adults but whispers, "baby talk," only head nodding
3. Quiet, no sounds or responses to adults
4. Whimpering, moaning, groaning, silently crying
5. Crying or may be screaming "no"
6. Crying, screaming loudly, sustained (audible through mask)

Emotional Expressivity

1. Manifestly happy, smiling, or concentrating on play
2. Neutral, no visible expression on face
3. Worried (sad) to frightened, sad, worried, or tearful eyes
4. Distressed, crying, extreme upset, may have wide eyes

State of Apparent Arousal

1. Alert, looks around occasionally, notices or watches what anesthesiologist does (could be relaxed)
2. Withdrawn, sitting still and quiet, may be sucking on thumb or have face turned in to adult
3. Vigilant, looking quickly all around, may startle to sounds, eyes wide, body tense
4. Panicked whimpering, may be crying or pushing others away, turns away

Use of Parents

1. Busy playing, sitting idle, or engaged in age-appropriate behavior and doesn't need parent; may interact with parent if parent initiates the interaction
2. Reaches out to parent (approaches parent and speaks to otherwise silent parent), seeks and accepts comfort, may lean against parent
3. Looks to parent quietly, apparently watches actions, doesn't seek contact or comfort, accepts it if offered or clings to parent
4. Keeps parent at distance or may actively withdraw from parent, may push parent away or desperately cling to parent and not let parent go.

Appendix B

Observation	Criteria	Points
Crying	• Not crying	0
	• Crying but responds to tender loving care (TLC)	1
	• Crying and does not respond to TLC	2
Movements	• None	0
	• Restless	1
	• Thrashing	2
Agitation	• Patient asleep or calm	0
	• Mild	1
	• Hysterical	2
Posture	• No special posture	0
	• Flexing legs and thighs	1
	• Holding scrotum or groin	2
Complains of pain (Where appropriate by age)	• Asleep, or states no pain	0
	• Cannot localize	1
	• Can localize	2

Note. Modified OPS scale (mOPS); mOPS contains 5 items instead of 6 in the initial OPS. The item dedicated to blood pressure has been removed.

Hypnose und dentale Anästhesie bei Kindern: Eine kontrollierte prospektive Studie

Adeline Huet, Marie-Madeleine Lucas-Polomeni, Jean-Claude Robert, Jean-Louis Sixou und Eric Wodey

Zusammenfassung: Die Autoren dieser prospektiven Studie nahmen ursprünglich an, dass Hypnose Angst und Schmerz bezüglich dentaler Anästhesie mildern würde. 30 Kinder (zwischen 5–12 Jahren) wurden zufällig zwei Gruppen zugeordnet, die entweder Hypnose (H) oder nicht

Hypnose (NH) erhielten während die Anästhesie verabreicht wurde. Angst wurde mittels der Yale preoperative anxiety scale (mYPAS) bei Aufnahme in die Studie erfasst, ebenso beim Erstgespräch, beim Platznehmen auf dem Zahnarztstuhl und während der Anästhesie. Nach der Anästhesie wurden eine visuelle Analogskala und eine Variante des "objective Pain Score" (mOPS) eingesetzt, um die Schmerzintensität zu messen. Die Medianwerte der mYPAS und der mOPS lagen in der H-Gruppe signifikant unter denen der NH-Gruppe. In der H Gruppe hatten signifikant weniger Kinder keine oder nur geringe Schmerzen. Diese Studie legt nahe, dass Hypnose zur Angstreduktion und Schmerzlinderung bei Kindern während dentaler Anästhesie wirksam ist.

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Hypnose et anesthésie dentaire chez les enfants: une étude prospective comparative

Adeline Huet, Marie-Madeleine Lucas-Polomeni, Jean-Claude Robert, Jean-Louis Sixou et Eric Wodey

Résumé: Les auteurs de cette étude prospective avait commencé par émettre l'hypothèse que l'hypnose pouvait réduire l'anxiété et la douleur associées à l'anesthésie dentaire. Trente enfants de 5 à 12 ans ont été placés au hasard dans 2 groupes, les participants du premier devant recevoir une suggestion d'hypnose au moment de l'anesthésie (H), mais non ceux de l'autre groupe (NH). Le niveau d'anxiété des enfants a été évalué à l'aide de l'échelle modifiée de l'anxiété préopératoire de Yale (mYPAS), et ce, à quatre reprises: aux moments de l'admission à l'étude, de la consultation initiale, de l'installation des enfants dans le fauteuil du dentiste et de l'administration de l'anesthésie. Après l'anesthésie, une échelle visuelle analogique et un score modifié de douleur objective (mOPS) ont été utilisés pour évaluer l'expérience de la douleur. Les scores médians mYPAS et mOPS étaient considérablement plus faibles dans le groupe H que dans le groupe NH. Beaucoup plus d'enfants du groupe H n'ont manifesté aucune douleur ou que très peu de douleur. Cette étude semble confirmer que l'hypnose peut efficacement réduire l'anxiété et la douleur chez les enfants recevant une anesthésie dentaire.

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Hipnosis y anestesia dental en niños: Un estudio prospectivo controlado

Adeline Huet, Marie-Madeleine Lucas-Polomeni, Jean-Claude Robert, Jean-Louis Sixou, y Eric Wodey

Resumen: Los autores de este estudio prospectivo inicialmente hipotetizaron que la hipnosis reduciría la ansiedad y el dolor asociado a la analgesia dental. Treinta niños entre 5 y 12 años de edad fueron asignados aleatoriamente a dos grupos, recibiendo hipnosis (H) o no (NH) al momento de la anestesia. Se midió la ansiedad al momento de la inclusión al estudio, la

consulta inicial, instalación en la silla dental, y en el momento de la anestesia, utilizando una modificación de la escala Yale de ansiedad preoperatoria (mYPAS). Después de la anestesia, se utilizó una escala análoga visual (VAS) y una puntuación objetiva de dolor modificada (mOPS) para evaluar el dolor experimentado. Las puntuaciones medianas mYPAS y mOPS fueron significativamente menores en el grupo H que en el grupo NH. Significativamente más niños en el grupo H no experimentaron dolor, o fue leve. Este estudio sugiere que la hipnosis puede ser efectiva en la reducción de ansiedad y dolor en niños recibiendo anestesia dental.

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