

Research Article

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Strategic Ericksonian Hypnotherapy as a coadjuvant treatment in the management of obstetric and postpartum pain.

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Abstract

Pain is a manifestation of the senses which becomes unpleasant within the physical and emotional field of a subject, this is the reason why the human being looks for a way to reduce this condition through the use of complementary non-pharmacologic analgesic techniques that can provide synergy, among them, hypnosis. The objective of this paper was to determine the efficacy of hypnotherapy as a coadjuvant treatment in postpartum and obstetrical analgesia. A controlled, random and open clinical trial was carried out in pregnant patients who used prenatal control in the navy hospital *Hospital Naval de Especialidades de Veracruz*, with a controlled group and an experimental group who received a hypnosis session in the 38 week pregnancy, evaluating its analgesic effect during labor and 24 hours after childbirth. There were 31 patients in the experimental group and 26 in the control group; the analgesic efficacy during childbirth presented a $p < 0.05$ value in favor of the experimental group having 9 patients with 8 points of pain versus zero patients in the control group; during the postpartum period, the experimental group presented 14 patients with 1 pain point versus 4 in the control group ($p < 0.05$); the level of postpartum anxiety resulted in $p > 0.05$ between both groups. No differences were registered between APGAR or neonates in both groups, which is why we concluded that hypnosis is an efficient coadjuvant treatment to reduce pain during and after labor.

Keywords

Hypnosis,
analgesic,
pregnancy.

Introduction

The International Association for the Study of Pain (IASP) defines pain as “an unpleasant sensory experience along with a motor, vagal, and even personality response” (1); this definition considers pain as a situation that affects psychological, physical, and biological conditions of the individual, conditioning a particular response for each patient, having as a consequence a particular experience for each subject that presents this condition.

During labor, the pain the pregnant woman presents can be considered as the result of complex, physiological processes and psychological influences (2), with this we can understand that the approach to pain in labor should be from different perspectives. Pain can be quantified by means of a visual analogue scale for pain (VAS); this instrument is based on personal perception, making it totally subjective, hence it should be taken into account that patients can classify their pain as severe and even so cope with it without suffering or feeling overwhelmed (3,4).

The VAS is the most known and accepted scale to evaluate pain, it tries to turn qualitative variables, like the perception of pain by the patient, into quantitative variables that can provide an idea of the intensity of the pain depending on the degree. When establishing the degrees of pain, the World Health Organization (WHO) indicates the criteria in the scales of values. According to these guidelines, the degree of pain is mild if the VAS indicates a value from 2-4, pain is moderate if the value is between 4-6 and it is severe in case the value is more than 6. (5)

During the treatment of labor pain, there is the limitation of reducing the option of analgesic treatment because of the pregnancy condition, therefore, a common problem in the field of obstetrical attention is the management of pain (6, 7, 8) and so diverse strategies to control pain in this field can be observed (9, 10), there are several pharmacological and non-pharmacological options to control the analgesic symptoms in pregnant patients. Among the non-pharmacological options, various techniques have been shown, such as water immersion, aromatherapy, relaxation techniques (yoga, music, audio), acupuncture among others, apart from hypnosis that can favor coping not only with pain, but also with the anxiety caused by labor (11, 12, 13) turning these in less traumatic events for the mother and the product, having as precedent systematic studies that date back to 1846 with the use of hypnotic anesthesia, later,

encouraging or neutral evidence for pain control was shown (10, 13, 14, 15, 16). It was possible to observe that the most relevant problems in being able to obtain conclusions is the variability in the use of hypnotic techniques and the lack of clarity in its adequate systematization and accurate methodological application (16).

Some women use some non-pharmacological approaches to control labor pain, there is evidence that non-pharmacological approaches for the management of pain does not make pain disappear, however, these approaches help women coping better with labor pain and maintaining a sense of personal control in the labor process, thus reducing their suffering (17). Since labor can be a painful event, many women want information regarding the levels of pain and relief options, which generates in an increase in anxiety because of the lack of information that is considered relevant to the patient (18,19).

Two reviews inform discrepancies between what women expect to be able to face during labor pain and what they really felt in their clinical attention. A systematic review of 32 studies (13 qualitative and 19 quantitative) informed that women generally underestimated the pain they would experience, that many wanted to participate in the decision making process, and the degree in which women could take control was less than anticipated (18). Hence, we consider as part of our study measuring the anxiety present in patients, to establish if there was a relationship between pain and anxiety, and how this was influenced by hypnosis.

Another review of 10 qualitative studies informed that the two main influences on the capacity of the woman to deal with labor pain were: continuous personalized support and acceptance of the necessity of experiencing some pain in order to give birth to their babies. The constant support established a sense of safety and reduced the feelings of loneliness and fear, which improved their capacity of their coping mechanism. Nevertheless, the review also informed that in many clinical environments there was a gap between the necessity of continuous support and women’s availability. (20)

According to APA (American Psychological Association) “hypnosis is a procedure that includes cognitive processes, like imagination, during which a health professional suggests while treating a person or patient that he or she experiences changes in

sensations, perceptions, thoughts or behavior with the objective that the changes can be produced quickly and effectively” (15).

Hypnotherapy is a psychological technique that produces a change in the hypnotized person that is called hypnotic trance. In this state, different to wakefulness and sleep, psychotherapy can be practiced. It can also be defined as verbal and nonverbal communication that takes place between a professional hypnotizer (psychotherapist, psychologist, or doctor) and a patient or client, who is guided to respond to the suggestions of change in perception, sensation, emotion, thought or behavior, according to the patient’s session (5).

In Mexico there is a model of systematic implementation of medical hypnosis, formally called *Hipnosomatoterapia* (5), the model formally registered is Strategic Ericksonian Hypnotherapy, focused on the evidence and with four specific areas, among them Strategic Ericksonian Hypnotherapy in Adults (21). The characteristics of this model that make it useful in medicine and psychology are the construction and statistical verification of systematic, specific techniques, and its general percentage of achievements between 75% and 100% with a $p < 0.05$, (22). From what was mentioned in previous paragraphs, considering the various analgesic non pharmacological options could be appropriate for modern medicine, moreover, with this technique, an anxiety control can be done in the done in the patient (11, 12, 13), which is why the general objective of this research was to evaluate the efficiency of hypnosis to manage pain during labor in pregnant woman in the gynecology and obstetrics service in *Hospital Naval de Especialidades de Veracruz (HOSNAVER)*, using the Hypnotic Analgesia Technique for Labor (21.)

Materials and Methods

A controlled, open, random clinical trial was carried out with pregnant patients that were taken care of in Gynecology and Obstetrics in the *Hospital Naval de Especialidades de Veracruz*. The inclusion criteria were: be a patient that had her prenatal care in the service of External Consultation in *Hospital Naval de Especialidades de Veracruz*, with a viable product, and that accepted to participate; those patients with psychiatric comorbidity without psychiatric control, with low cognitive reserve, and that did not understand Spanish language were excluded; lastly, patients who withdrew their authorization to continue participating,

passed away before finishing before culminating pregnancy or underwent pregnancy interruption through surgery were eliminated. The independent variable was the coadjuvant treatment with hypnotherapy, while the independent one was pain and anxiety. All patients who had prenatal control and had a probable labor date that comprised March 1st to November 30th 2018 were invited to participate.

After obtaining authorization for this research by the research and ethics committee in the HOSNAVER, pregnant patients who attended prenatal control consultation were invited to participate in this study, having evidence of their consent through the signing of the informed consent form. Patients that accepted to participate were divided in two groups distributed randomly by means of a random numbers chart developed by epidat 3.1, where it was indicated that the experimental group would receive the usual pre and post natal attention according to the quality and warmth norm during the monitoring of pregnancy, in addition to a hypnosis session within the Strategic Ericksonian Hypnotherapy frame, by employing the same structured systematic technique of analgesia programmed for labor during pregnancy week 38, on the other hand, the control group would receive the usual pre and post natal attention according to the quality and warmth norm during the monitoring of pregnancy.

During their hospital stay after labor, each patient in each of the groups was asked to rate pain according to the visual analogue scale for pain (VAS), measuring the maximum pain during labor, and the maximum pain during their hospital stay within the 24 first hours post-partum. The Hamilton scale for anxiety was also used on them before the hypnosis session and 24 hours after childbirth, additionally APGAR values and neonate weight were quantified to establish the innocuousness of hypnosis in the neonate.

The descriptions of qualitative variables were managed with absolute and relative variables, the quantitative variables with average and standard deviation; as central tendency and dispersion measures. The comparisons of independent variables were carried out, Qualitative with Mann-Whitney U and Quantitative with T-student. The efficiency calculations were carried out by means of relative risk, relative risk reduction, absolute risk reduction and number needed to be treated. The statistical significance was considered present with a $p\text{-value} < 0.05$ and software IBM SPSS Statistics was used to carry out these procedures.

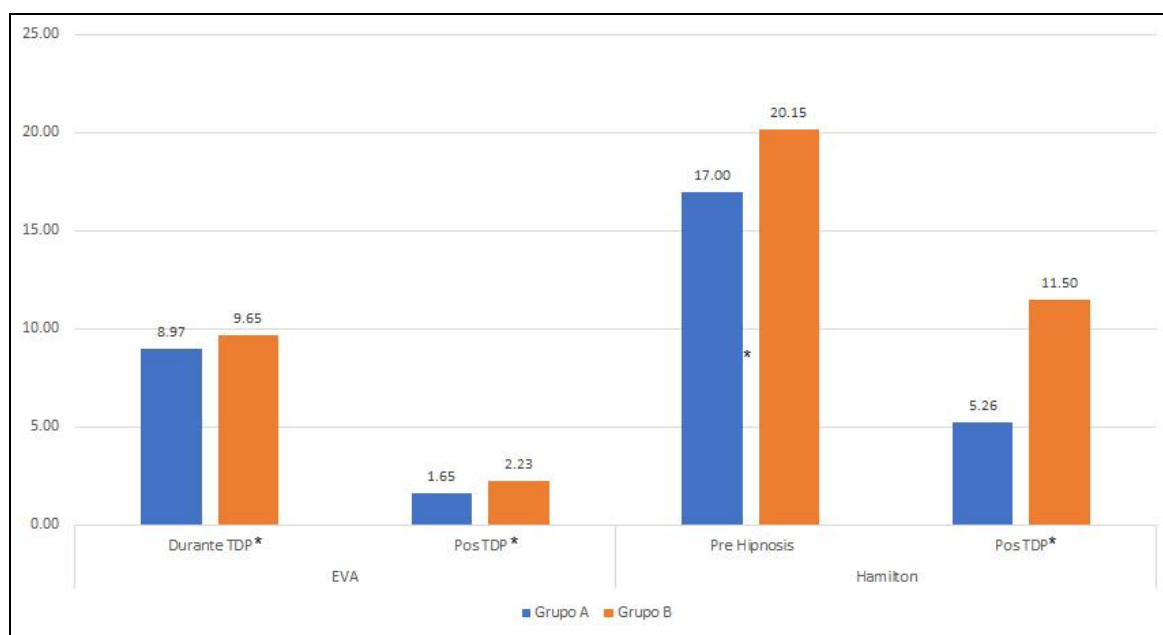
Results

57 patients were included in the study, without taking into account those excluded or eliminated. Patients had an age average of 27.8 with a standard deviation (SD) of ± 4.81 years; the most critical pain moment during labor had an average intensity of 9.28 ($SD \pm 0.73$) points; for the Hamilton anxiety scale in both groups a more general value was found before giving birth 18.44 ($SD \pm 9.04$).

The intervention group (Group “A”) was made up of 31 patients within an age average of 26.87 ($SD \pm 5.4$),

while the control group (Group “B”) had an average age of 27.77 ($SD \pm 3.9$), with a total of 26 patients. Graph 1 shows the intergroup comparison between the score obtained in the VAS and the Hamilton test, identifying p-values < 0.05 in the entry of pre and post-partum VAS values, as in the score in post-partum Hamilton scale. The intergroup comparison between patients show values of $p < 0.05$ in pain intensity in group “A”, on the other hand, group “B” refers this difference in the anxiety and pain intensity entries. Graph 2 shows the intergroup difference in participant patients in this research.

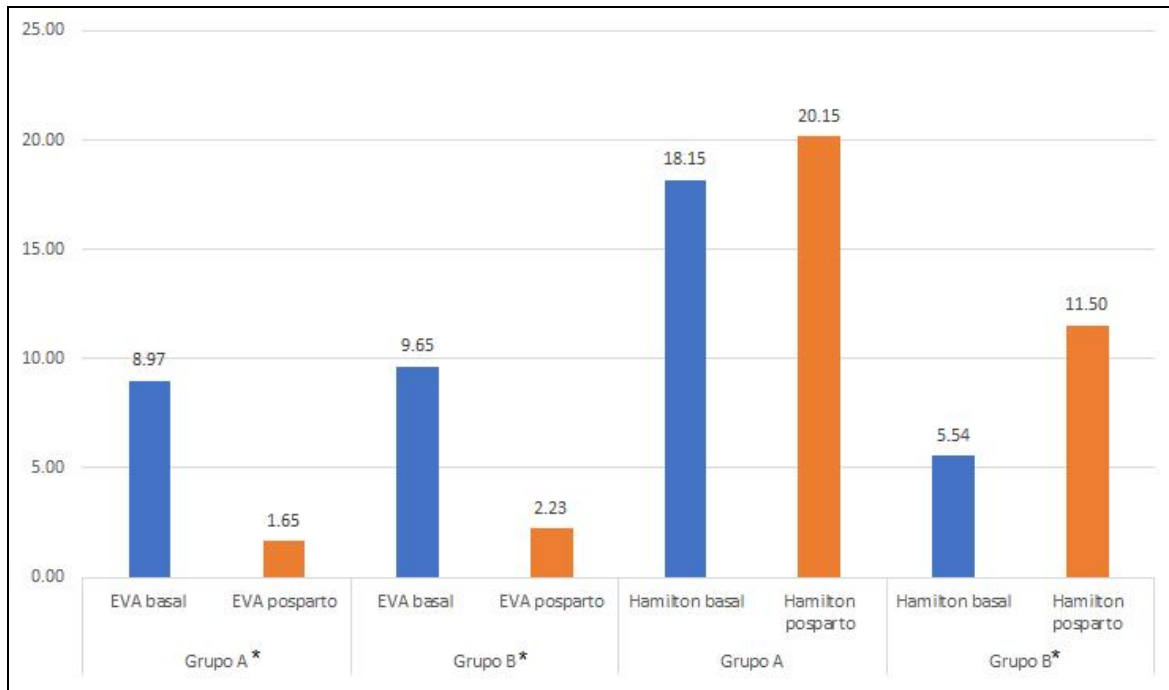
Graph1. Intergroup comparison in VAS and Hamilton score.



Durante TDP = during labor
 EVA= VAS
 Pre TDP =before labor
 Pos TDP= after labor
 Pre hypnosis = pre- hypnosis
 Grupo A= Group A
 Grupo B = Group B

Labor. P- value < 0.05 (*).

Graph 2. Intergroup comparison of VAS and Hamilton scores.



EVA basal = VAS basal
 EVA posparto = VAS post partum
 Hamilton basal = Hamilton basal
 Hamilton posparto = Hamilton post partum
 Grupo A = Group A
 Grupo B = Group B

The level of efficiency of the analgesia hypnotic technique was scored by patients from 0 to 10. The total of patients reported a pain intensity between 8 and 10 points in the VAS scale; group “A” presented 9 patients with 8/10 points of pain, 14 with 9/10 points and 8 with 10/10 points, while group “B” registered 9 patients with 8 points of pain, showing a p-value <0.05 when comparing the probability of presenting 8 points of pain during labor, as well as presenting 10

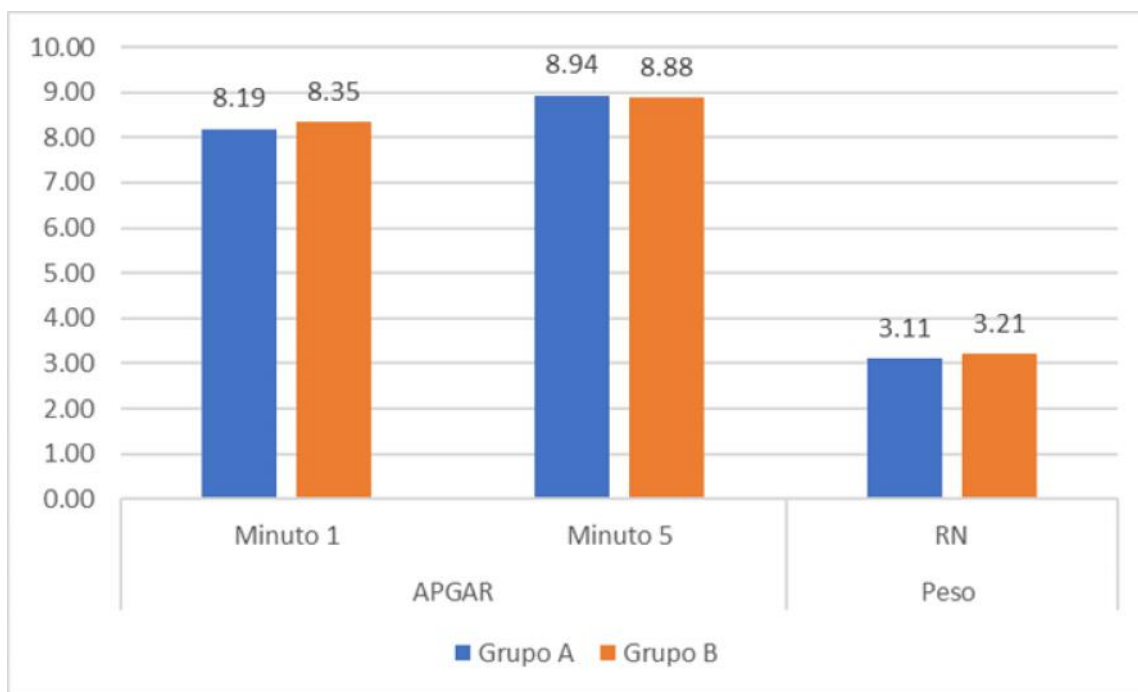
points in that same situation. After 24 hours postpartum, patients described their level of pain between 1 and 3 points in the scale; the efficiency to reach score 1/10 of pain was obtained in 14 out of 31 patients that received the hypnotic technique, and in the group without hypnosis 4 out of 26 patients had pain in 1/10, obtaining a p-value <0.05 for this difference. Table 1 describes the analgesic and anxiolytic efficiency in hypnotherapy.

Table I. efficiency of hypnotherapy in Labor.

During Labor	Pain Vas 8 points		Pain Vas 9-10 points		RR	HF 95%	p- value	RRR	ARR	NNT (IC95%)
	total	%	total	%						
With Hypnosys (n=31)	9	100%	22	45.9%	--	--	0.002*	--	0.29	4 (3 – 8)
Without Hypnosis (n=26)	0	0	26	54.1%						
During Labor	Pain Vas 10 points		Pain Vas 9-10 points		RR	HF 95%	p-value	RRR	ARR	NNT (IC95%)
	total	%	total	%						
With Hypnosis (n=31)	8	32%	23	71.9%	0.3	0.2 – 0.7	0.006*	0.61	0.40	3 (2 – 7)
Without Hypnosis (n=26)	17	68%	9	28.1%						
After labor	Mildpain		Moderatepain-severe		RR	HF 95%	p-value	RRR	ARR	NNT (IC95%)
	total	%	total	%						
With Hypnosis (n=31)	14	77.8%	17	44.0%	2.93	1.10 - 7.83	0.02*	-1.94	-0.30	4 (2 – 14)
Without Hypnosis (n=26)	4	22.2%	22	56.0%						
After labor	Severepain		Mildpain-moderate		RR	HF 95%	p-value	RRR	ARR	NNT (IC95%)
	total	%	total	%						
With Hypnosis (n=31)	3	23.1%	28	53.8%	0.25	0.07- 0.8	0.01*	-0.47	-0.29	4 (2 – 14)
Without Hypnosis (n=26)	10	76.9%	16	46.2%						
After labor	Mildanxiety		ModerateAnxiety		RR	HF 95%	p-value	RRR	ARR	NNT (IC95%)
	total	%	total	%						
With Hypnosis (n=31)	31	58.3%	0	5% %	1.13	0.98- 1.30	0.08	-0.13	-0.12	(9-nc)
Without Hypnosis (n=26)	23	41.7%	3	14						

The evaluation of the safety of hypnosis for the neonate showed p values >0.05 in minutes one and five in the APGAR values, and in the weight of the newborn; values that were compared to the treatment the mother received, represented in graph 3.

Graph 3. Hypnosis safety in the neonate.



Minuto 1 = Minute 1
 Minuto 5 = Minute 5
 RN= NB
 APGAR = APGAR
 Peso = weight
 Grupo A= Group A
 Grupo B = Group B

No p-values <0.05 are shown between the APGAR comparisons and the new bornweight. NB: New Born. Weight expressed in kilograms, APGAR expressed in points.

Discussion

The Strategic Ericksonian hypnotherapy is efficient to reduce pain intensity during labor, there is also evidence that it generates pain relief in patients who underwent surgery, having as a favorable consequence a decrease in the quantity of dose for analgesia and sedation before, during, and after surgery. Moreover, it has been reported in obstetric patients a decrease in the quantity of analgesics used during labor (23); in regards to the efficiency to decrease the pain intensity within the first 24 hours post-partum, Mondoza carried out a systematic review in which it is stated that obstetrical patients refer to more satisfaction in the labor experience, that it was shorter, and had less use of analgesics (23). It should be mentioned that in the

year 2013 Arendt carried out a systematic review having as a main finding that the effectiveness of analgesia during labor is significant when patients volunteer to being hypnotized, a situation that does not occur when designing groups randomly where there are non-significant results when comparing the hypnotic treatment with a control group (24).

A meta-analysis published by the Chocrane library in 2016, refers to not having enough evidence to determine the efficiency of analgesia in patients that receive a hypnotic treatment compared to a control group (16), while (25) in 2019 reports a review of evidence in favor of hypnosis to improve analgesia during labor, same situation was stated by (26) based on the review of 85 clinical trials.

The Strategic Ericksonian hypnotherapy is efficient, it does not decrease post-partum anxiety, Legrand showed based on the analysis of a 31 week pregnancy patient by means of a crossed design A-B-A where during stage "A" usual prenatal care were carried out for the patient, while during stage "B" a daily 50 minute session of ericksonian therapy during 7 days was added as a coadjuvant. This study shows the decrease of anxiety during hypnosis, with which we can explain not having success in our patients anxiety. (27); on the other hand, there is evidence that supports the use of hypnosis in patients with anxiety in patients that are not pregnant, it is efficient (28), complementarily benefits of hypnotherapy were also shown combined with behavioral cognitive interventions, this synergy being better than just hypnosis or placebo. (29). In the same way, there is date that indicates the efficiency to relief anxiety of patients that would undergo surgery (23), as well as reducing anxiety before childbirth starting the therapy with hypnosis in week 16 pregnancy, making a valuation of anxiety in weeks 20, 28 and 36, showing significant differences until the last evaluation carried out.

The Strategic Ericksonian Hypnotherapy is innocuous to neonates showing APGAR and weight within similar parameters, this concurs with reported evidence in a meta-analysis in year 2016 (16), additionally in other publications higher APGAR scores have been reported in the groups that receive therapy with hypnosis at the end of pregnancy, both in the first minute evaluation and in minute five after being born (31).

The originality of this research resides in the fact that a hypnotic technique was used deliberately designed for analgesia, considering labor physiological aspects, physiologically guiding the suggestions, and considering possible difficulties due to pain and anxiety, making suggestions based on their physiopathology as a prevention. The technique was always rigorously applied, to each and every patient in the experimental group which could explain our favorable results, that do not entirely concur with the evidence generated up to this day, which is why it provides a support to the favorable outlook of hypnosis taking into account that it is possible to use techniques that are precise, physiologically oriented,

using hypnotic language and syntax in Spanish, with evidence of corporal and psychological concrete influence, and that would be clinically useful afterwards.

In this study difficulties derived from the use of the hypnotic technique were not found, which results initially encouraging.

In the critical analysis of other possible coadjuvant factors in the results, there are factors that are ethically essential and that could have influenced favorably in the evolution. This refers to the environment of quality attention, and qualities that belong to the institution where the attention was given to patients, however, the experimental constitution of groups allows trusting the effect of strategic ericksonian hypnotherapy in this sample.

The limitations of this study are related to the sample whose size was good enough, nevertheless it could be improved, leading to the creation of a line of study to give a follow-up to the patients and their children, as well as to be able to replicate this design identifying the possible effects of the treatment in the labor and post-partum process.

References

1. IASP. International Association for the Study of Pain 2011 Annual Report.
2. Lowe NK. The nature of labor pain. *Am J Obs Gynecol.* 2002; 186.
3. Wuitchik M, Bakal D, Lipshitz J. Relationships between pain, cognitive activity and epidural analgesia during labor. *Pain [Internet].* 1990 May; 41(2):125–32.
4. Trout KK. The neuromatrix theory of pain: Implications for selected nonpharmacologic methods of pain relief for labor. *J Midwifery Women's Heal.* 2004;49(6):482–8.
5. Weitzenhoffer, André, M. (2000). *The Practice of Hypnotism (Second Edition)*, New York, NY: John Wiley & Sons
6. Kozhimannil KB, Johnson PJ, Attanasio LB, Gjerdingen DK, McGovern PM. Use of nonmedical methods of labor induction and pain management among U.S. women. *Birth.* 2013; 40(4):227–36.

7. Lally JE, Murtagh MJ, Macphail S, Thomson R. More in hope than expectation: A systematic review of women's expectations and experience of pain relief in labour. *BMC Med.* 2008; 6:1–10.
8. Raynes-Greenow CH, Roberts CL, McCaffery K, Clarke J. Knowledge and decision-making for labour analgesia of Australian primiparous women. *Midwifery.* 2007; 23(2):139–45.
9. Bonapace J, Gagné GP, Chaillet N, Gagnon R, Hébert E, Buckley S. No. 355-Physiologic Basis of Pain in Labour and Delivery: An Evidence-Based Approach to its Management. *J Obstet Gynaecol Canada [Internet].* 2018; 40(2):227–45. Available from: <https://doi.org/10.1016/j.jogc.2017.08.003>
10. Ginger O, Castro M, Gamboa DA, Avila-stagg DF. Hypnosis procedure to avoid pain during labor delivery. 2014; 17(2):122–6.
11. Badaoui A, Kassm S, Naja W. Fear and Anxiety Disorders Related to Childbirth: Epidemiological and Therapeutic Issues. *Curr Psychiatry Rep [Internet].* 2019; 21(4):1–14.
12. Striebich S, Mattern E, Ayerle GM. Support for pregnant women identified with fear of childbirth (FOC)/tokophobia – A systematic review of approaches and interventions. *Midwifery.* 2018; 61:97–115.
13. Moghaddam Hosseini V, Nazarzadeh M, Jahanfar S. Interventions for reducing fear of childbirth: A systematic review and meta-analysis of clinical trials. *Women and Birth [Internet].* 2018; 31(4):254–62
14. Esdaile James. Mesmerism in India and its practical Application in Surgery and medicine.
15. Ordi L. El empleo de la hipnosis en el manejo y alivio del dolor durante el parto: revisión de la literatura. *SocEspañola Med Psicósomática y Psicoter.* 2014;4.
16. Madden K, Middleton P, Am C, Matthewson M, Jones L. Hypnosis for pain management during labour and childbirth (Review). *Cochrane Database Syst Rev [Internet].* 2016;2016(5): aunsin paginación
17. Kozhimannil KB, Johnson PJ, Attanasio LB, Gjerdingen DK, McGovern PM. Use of nonmedical methods of labor induction and pain management among U.S. women. *Birth.* 2013; 40(4):227–36.
18. Lally JE, Murtagh MJ, Macphail S, Thomson R. More in hope than expectation: A systematic review of women's expectations and experience of pain relief in labour. *BMC Med.* 2008; 6:1–10.
19. Raynes-Greenow CH, Roberts CL, McCaffery K, Clarke J. Knowledge and decision-making for labour analgesia of Australian primiparous women. *Midwifery.* 2007; 23(2):139–45.
20. Van der Gucht N, Lewis K. Women's experiences of coping with pain during childbirth: A critical review of qualitative research. *Midwifery [Internet].* 2015; 31(3):349–58.
21. Abia, Jorge. ; Núñez, Rafael.; (2012). *Hipnoterapia Ericksoniana Estratégica para Adultos Individual.* (13 Manuales). Editorial de la Sociedad Mexicana de Hipnosis; México.
22. Núñez, Rafael.; Abia, Jorge.; (2001); *Revista Virtual: Estados Alternativos de Consciencia,* Números 1,2,3,4,5,6,y 6; Sociedad Mexicana de Hipnosis. www.institutoerickson.com.mx
23. Mendoza ME, Capafons A. Eficacia de la hipnosis clínica: Resumen de su evidencia empírica. *Papeles del Psicol.* 2009; 30(2):98–116.
24. Arendt KW, Tessmer-Tuck JA. Nonpharmacologic labor analgesia. *Clin Perinatol [Internet].* 2013; 40(3):351–71.
25. Moss D, Willmarth E. Hypnosis, anesthesia, pain management, and preparation for medical procedures. *Ann Palliat Med [Internet].* 2019;0(0):1–6. Available from: <http://apm.amegroups.com/article/view/27360>
26. Thompson T, Terhune DB, Oram C, Sharangparni J, Rouf R, Solmi M, et al. The effectiveness of hypnosis for pain relief: A systematic review and meta-analysis of 85 controlled experimental trials. *NeurosciBiobehav Rev [Internet].* 2019; 99(June 2018):298–310. Available from: <https://doi.org/10.1016/j.neubiorev.2019.02.013>
27. Legrand F, Grévin-Laroche C, Josse E, Polidori G, Quinart H, Taiar R. Effects of hypnosis during pregnancy: A psychophysiological study on maternal stress. *MedHypotheses [Internet].* 2017; 102:123–7.
28. Kumar A, Jena S. Effect of clinical hypnotherapy on anxiety symptoms. *Delhi Psychiatry J.* 2013; 16(1):134–9.
29. Holdevici I, Craciun B. Hypnosis in the Treatment of Patients with Anxiety Disorders. *Procedia - SocBehavSci.* 2013; 78:471–5.
30. Beevi Z, Low WY, Hassan J. Impact of hypnosis intervention in alleviating psychological and physical symptoms during pregnancy. *Am J Clin Hypn.* 2016; 58(4):368–82.

31. Harmon TM, Hynan MT, Tyre TE. Improved obstetric outcomes using hypnotic analgesia and skill mastery combined with childbirth education. J Consult Clin Psychol. 1990; 58(5):525–30.

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