AN ASSESSMENT OF THE VALUE OF HYPNOSIS IN PREGNANCY AND LABOUR*

BY

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Considerable attention is being paid to the emotional and mental state of women in pregnancy and labour. With modern antenatal care in this country, the physical hazards of pregnancy and labour have been greatly reduced, but the emotional and mental hazards have, if anything, been increased by the high hospital-confinement rate, with the attendant risk of impersonal attention in strange surroundings.

One of many methods of reducing fear and emotional tension in pregnant women is to use hypnosis. The following assessment of its effect on 70 pregnant women was done with two main purposes: (1) To make the patient enjoy her pregnancy and labour; (2) to assess the effect, if any, of mental and physical relaxation on the course of labour, particularly with regard to the duration of labour and the need for chemical analgesia. The 70 women were taught autohypnosis in pregnancy, and the subjective sensations and objective findings in this group were compared with 70 patients taught physiotherapy relaxation by exercises and controlled breathing, and 70 control patients with no special antenatal training. In all three groups 45 were primigravidae and 25 multigravidae. The patients were allowed to choose which group they joined, but the elderly primigravidae, the anxious, and those who had had previously distressing labours were encouraged to join the autohypnosis group, so that this group was weighted with those one would expect to have a difficult or long labour.

The antenatal training consisted of six "lessons" in the autohypnosis and physiotherapy relaxation groups. The patient to be taught autohypnosis attended her first class as soon as possible after her first antenatal visit, the last lesson being as near the time of confinement as possible. The technique employed was as follows. Groups of six patients were taken together, lying on mattresses in a light, warm, quiet room in the hospital. An explanation of the technique was given and questions answered. The obstetrician was the hypnotist. A trance was induced by the method of eye-fixation to produce retinal fatigue, and progressive relaxation by voice-suggestion using monotonous rhythm, and post-hypnotic suggestion as described by Mason (1960). Positive suggestions were then given of the normality of pregnancy and labour, of the diminished awareness of pain when relaxed and therefore of the diminished need for chemical analgesics, and of the ability to produce anaesthesia of the perineum at the birth of the head; also, the satisfaction and pleasure of childbirth was stressed. The patient was then awakened by counting five with suggestions of wakening and feeling refreshed. At the third session the patient was taught to put herself into a trance, so that she would be independent of the hypnotist in the labour ward, although the best results were achieved if the obstetrician-hypnotist could also

* Part of a thesis accepted for the M.D. by Edinburgh University, 1961.

attend the labour at the beginning and at the end of the first and second stages. At the postnatal visit the patient was again put into a trance and told that she would only be able to be hypnotized in future by a doctor or dentist for medical purposes, thus protecting the trained subject.

The physiotherapy group were given six weekly relaxation classes of controlled breathing, and pelvic exercises from the 34th week, by a physiotherapist or midwife. The third control group had no special antenatal training apart from mothercraft classes. All were delivered in the same hospital and under the same conditions.

Results

The labours of the 45 primigravidae in each group were compared and the following data obtained (Table I).

TABLE I

Group	Average Age	Average Length of Labour	Average Blood Loss in 3rd Stage	Average Weight of Baby
Autohypnosis	28 yrs. mths.	10 hrs. 11 mins.	9 oz. (255 g.)	7 lb. 2 oz. (3,232 g.)
Physiotherapy	23 6	16 30	8.8 oz. (249 g.)	7 lb. 5 oz. (3,317 g.)
Control ..	22 6	17 52	11 oz. (312 g.)	7 lb. 3 oz. (3,260 g.)

When the total time of labour is broken down into the duration of the first, second, and third stages, all the reduction of time in the hypnosis group is found in the first stage (Table II).

TABLE II

Group	Average Duration of 1st Stage	Average Duration of 2nd Stage	Average Duration of 3rd Stage	Average Total Length of Labour
Autohypnosis	8 hrs. 56 mins.	1 hr. 3 mins.	12 mins.	10 hrs. 11 mins.
Physiotherapy	15 " 10 "	1 " 7 "	13 "	16 " 30 "
Control ..	16 " 36 "	1 " 3 "	13 "	17 " 52 "

If the length of the first stage of labour is grouped as in Table III the reduction of the duration in the hypnosis group is clearly seen. Thus the hypnosis group, although an older age-group by five years, and selected because of fear and anxiety, had a labour of

TABLE III

Length of 1st Stage of Labour (Hrs.)	Autohypnosis Group	Physiotherapy Group	Control Group
0-6	19	7	9
6.1-12	19	15	14
12.1-18	3	9	6
18.1-24	2	7	7
24.1-30	2	3	4
30.1-36	0	1	1
36.1-42	0	2	1
42.1-48	0	1	2
48.1-54	0	0	1

just over half the average length of the other two groups, the average baby's weight being almost the same in each group. Although this is not a large group the reduction in the duration of labour is statistically significant ($P < 0.05$). This reduction in the length of the labour in patients trained by hypnosis for childbirth and delivered either in the trance state or under post-hypnotic suggestion is confirmed by Abramson and Heron (1950), Michael (1952), and Fry (1959), but not by Winkelstein (1958), August (1960), and Perchard

(1960). The good results of the above group may be due to the fact that the hypnosis-training and delivery were supervised by one person, whereas in some of the large groups reported a team of workers was used, where rapport is more difficult to obtain.

If suggestion, relaxation, and the removal of fear can influence labour objectively at all, one would expect the influence to be manifest in the first stage, where removal of tension and fear causing sympathetic-parasympathetic disharmony would result in a quicker and less painful cervical dilatation. In the second stage the patient feels she can help the progress of labour by down-bearing. She usually has a nurse with her, and her mental state is better as she feels the end of labour is in sight, and a certain time must be taken with the primigravida to allow the foetal head to descend and stretch the perineum. The duration of the second stage was very constant in all three groups. Hypnosis therefore does tend to shorten labour, and in this series shortened it significantly in the first stage.

Simple physiotherapy training by Grantley Dick Read's method, however, did not shorten labour in this series, and this is confirmed by van Eps (1955), Burnett (1956), and Rodway (1957), although Read (1949) himself claimed that this method shortened labour, and Heardman (1954) confirmed this.

The need for chemical analgesia or anaesthesia was significantly reduced in the autohypnosis-trained group, although 30 of the 45 were selected because of over-anxiety and fear of labour. The requirements of primigravidae are shown in Table IV.

TABLE IV

Group	No Analgesia	Gas-and-air ± "Well-dorm"	Pethidine Only	Pethidine and Gas-and-air	Scop. Only	Pethidine and Gas-and-air ± an Opiate or Barbit.	
<i>Before Delivery</i>							
Autohypnosis	30	0	11	1	1	2	
Physiotherapy	0	17	2	18	0	8	
Control ..	2	15	3	17	0	8	
<i>At Delivery</i>							
Hypnosis group ..	{	37 spontaneous—No analgesia required 8 forceps—3 required no analgesia 4 pudendal block 1 general anaesthetic					
Physiotherapy group ..		{	37 spontaneous—All required gas-and-air or "trilene" 8 forceps—1 required no analgesia 6 required pudendal block 1 required gas-and-oxygen and local				
Control group			{	43 spontaneous—5 required no analgesia 38 required gas-and-air or "trilene" 2 forceps—Both required pudendal block			
<i>For Perineal Repair</i>							
Hypnosis group	25 (56%) required sutures.	13 (52%) of these required local or pudendal anaesthesia					
Physiotherapy group ..	33 (73%) required sutures, and all required local anaesthesia + "omnopon"						
Control group	34 (76%) required sutures, and all required local anaesthesia + "omnopon"						

In the hypnosis group 25 (55%) of the 45 patients required no analgesia or anaesthesia throughout labour other than their own hypnotically induced insensitivity to pain. In the physiotherapy group all required some analgesia in labour; in the control group all except one required some chemical analgesia. All other authors find the same marked diminution in the need for chemical analgesia in hypnotically trained patients—for

example, Michael (1952), Kline and Guze (1955), Winkelstein (1958), Fry (1959), Werner (1959), August (1960), Perchard (1960), and Tom (1960). This fact is one of the main indications for the method, giving greater safety to mother and child as chemical anoxia is eliminated. In a really deep-trance patient, analgesia can be so complete as to allow a caesarean hysterectomy with no other chemical analgesic agent, as reported by Kroger and DeLee (1943), and Winkelstein (1958).

Very similar results were obtained by comparing the results of 25 multigravid patients (most of whom had had a difficult previous labour, or had had a stillbirth, or who did not want the present child because of age or social circumstances) with the labours of 25 patients given physiotherapy training and 25 control patients.

The analgesic requirements of 25 multigravidae are shown in Table VI.

Analysis of the subjective impressions in labour of the three groups of 70 patients is shown in Table VII.

Even if there had been no shortening of the length of labour or diminution of the amount of analgesics required, the time spent on teaching these patients relaxation and autohypnosis, a total of about one-and-a-half hours per group of six patients, would have been well spent, as it gave them a happy and confident pregnancy and a feeling of pleasure and achievement in labour, so that 37 (53%) felt no pain or only slight pain in any part of the labour, 49 (70%) described labour as a pleasant experience, and only 7 (10%) found labour unpleasant; 84% were keen to have another

TABLE V.—Average Duration of Labour in 25 Multigravidae

Group	Average Age		1st Stage		2nd Stage	3rd Stage	Total		Average Baby's Weight	
	yrs.	mths.	hrs.	mins.	mins.	mins.	hrs.	mins.	lb.	oz.
Hypnosis	31	10	6	21	24	10	6	55	7	6
Physiotherapy	30	4	9	28	30	11	10	9	7	13
Control	29	9	9	45	24	11	10	20	7	10

Group	Length of 1st Stage of Labour (Hours)					
	0-6	6-1-12	12-1-18	18-1-24	24-1-30	30-1-36
Autohypnosis	16	8	0	1	0	0
Physiotherapy	9	9	6	0	0	1
Control	9	11	1	3	0	1

TABLE VI

Group	No Analgesia	Gas-and-air ± "Well-dorm"	Pethidine Only	Pethidine and Gas-and-air	Morphine 1/6 gr. Only	Pethidine + a Barbit. or Opiate and Gas-and-air
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<i>Before Delivery</i>						
Autohypnosis	17	4	2	1	1	—
Physiotherapy	3	8	2	8	—	4
Control	1	12	1	9	—	2

<i>For Delivery</i>		
Group	Required Gas-and-air or "Trilene"	For Perineal Suture
Autohypnosis	5	11 (44%) required sutures. 4 (36%) of these required a local anaesthetic
Physiotherapy	20 (including 2 pudendal block for forceps)	18 (72%) required sutures. All required local anaesthesia, and 3 also required "omnopon," 1/2 gr. (22 mg.)
Control	23	11 (44%) required sutures. All required local anaesthesia, and 2 also required "omnopon," 1/2 gr. (22 mg.)

child, and of the rest all except two gave their reasons for not wanting another as age or size of family, so that in only two cases did the experience of labour make the patient "not very keen to have another."

This shows a very different picture from that given by the 70 patients with no relaxation training, where four (6%) felt no pain or only slight pain in labour; 33% described labour as a pleasant sensation, and 24% found labour unpleasant, and 26% of those not wanting another child gave the labour as their reason.

In the physiotherapy group trained by Read's method the subjective impressions of the patients in the first stage of labour lie between the autohypnosis group and the controls, but in the second stage physiotherapy

TABLE VII

Questionary*	Hypnosis Group		Physiotherapy Group		Control Group	
	No.	%	No.	%	No.	%
1. Memory of (a) The whole of labour ..	33	47	58	83	66	94
(b) Part of labour ..	27	39	10	14	4	6
(c) None ..	10	14	2	3	0	0
2. Pain felt in first stage:						
(a) None ..	32	46	6	8	3	4
(b) Slight ..	22	31	25	36	16	23
(c) Moderate ..	12	17	32	46	33	47
(d) Severe ..	4	6	7	10	18	26
3. Pain felt in second stage:						
(a) None ..	17	24	0	0	2	3
(b) Slight ..	20	29	2	3	2	3
(c) Moderate ..	19	27	19	27	20	29
(d) Severe ..	14	20	49	70	46	65
4. Was labour (a) Pleasant ..	49	70	16	23	23	33
(b) Unpleasant ..	7	10	24	34	17	24
(c) Not sure ..	14	20	30	43	30	43
5. What about having more children?						
Are you (a) Keen ..	59	84	31	44	35	50
(b) Not keen ..	9	13	36	52	22	31
(c) Definitely against ..	2	3	3	4	13	19
Reasons for 5b or c:						
Labour was too unpleasant ..	2	3	14	20	9	13
Family large enough ..	4	6	22	31	23	33
Age (over 40) ..	7	10	3	4	3	4

* Similar to the questionnaire used at the Mile End Hospital, London.

training did not appear to alleviate pain or make the labour seem more pleasant to the patient.

Perhaps the greatest subjective gain was that in the autohypnosis group: 70% described the labour as pleasant, whereas only 23% of the physiotherapy patients and 33% of the controls looked back on labour as pleasant.

Summary

The labours of 70 patients trained in autohypnosis are compared with 70 patients given physiotherapy training for labour and 70 control patients.

A statistically significant reduction in the duration of the first stage of labour occurred in the autohypnosis-trained group as compared with the other two groups ($P<0.001$).

Autohypnosis was found to be an effective analgesic in labour: 59% of this group of patients required no chemical analgesia in any stage of labour, whereas in the control group only 1.4% required no analgesic drug, and in the physiotherapy group all patients required some chemical analgesia. Statistically this difference was very significant ($P<0.001$).

No significant difference in the third-stage blood loss was found in the three groups.

The episiotomy or tear rate was less in the hypnotically relaxed patients—51% as compared with 73% in the physiotherapy group and 64% in the control group—but this difference is not statistically significant ($P=0.10-0.20$).

The subjective impression of labour was much more pleasant in the autohypnosis group.

The time spent antenatally (1½ hours for six patients) and the personal attention involved are well worth while to produce such objective and subjective benefits to the pregnant woman, and hypnosis should be used in obstetrics more widely than it is at present.

I wish to thank Professor R. Kellar, of Edinburgh, for his help and advice, also Mr. S. Sklaroff, of Edinburgh, for the statistical analysis, and Sister Teasdale, of the City Maternity Hospital, Carlisle, for her co-operation and help in the labour ward.

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CHORIONEPITHELIOMA

A STUDY OF 41 CASES

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A chorionepithelioma is a neoplasm consisting of both syncytial and Langhans trophoblasts in varying proportions. Microscopically, columns and sheets of trophoblasts are seen penetrating the muscle and blood-vessels in a lawless manner interspersed with areas of clotted blood. The most important diagnostic sign of chorionepithelioma is complete absence of a villous pattern. Although Acosta-Sison (1949) saw no fewer than 142 cases of chorionepithelioma during 10 years at Manila, Hall (1950) saw only two in 20 years, Hunter and Dockerty (1955) reported 12 cases in 17 years, and Jones (1954) estimated the incidence as 1 in 70,000 deliveries.

From July, 1953, to December, 1961, a period of eight and a half years, 54,555 deliveries were undertaken by the Department of Obstetrics and Gynaecology, Hong Kong University. In the same period 41 cases of chorionepithelioma were encountered, thus giving an incidence of 1 in 1,331. This relatively high number is misleading and can be explained by the fact that the patients suffering from chorionepithelioma and referred