

Research study: Accompanying Pregnant Women

Dr Susan Andrews has translated an article from French to English about comparative research with large control groups performed at the hospitals in Vesoul and Foch, France.

- ACCOMPANYING PREGNANT WOMEN A Comparative Study at Vesoul and Foch As we have indicated in one of our preceding bulletins, a supplement to Nine Months of Paradise, a comparative study between the two experiences was undertaken by the Paris team. Odile Salaün and Raphaël Michon, who have joined our editorial committee, have undertaken an analysis, which we are publishing here. We owe thanks to them for having made this study possible,, which offers new ideas for research and suggests new procedures when working with pregnant women. This study was constructed with a large control group and several points of measure in order to offer information on the value of the Tomatis Method for pregnant women. Each of knows how important a happy birth, without problems, is to the parents and to the child. Each of us knows also, how easily intrauterine life can be disturbed. A poorly managed delivery can presage a life of obstacles in a body that is often very troubled. The purpose of this study is to show how every birth can be a happy event and prepare future mothers and infants for a beautiful relationship.

- VESOUL AND FOCHE- (Hospitals in the surrounding area of Paris) The use of the Tomatis Method during pregnancy was begun in 1988 at the Maternity of the Vesoul, (Hospital Maternity Care Unit), under the vigilant eye of Dr. Klopfenstein and Marie Ouvrard. In two years, the following results were obtained. This method has now become part of the hospital's permanent practice. More recently, the team of Dr. Penet and Madame Tordjman, at the Hospital Foch de Suresnes , undertook a similar study. Methodology 1. The Constitution of the groups: Three groups of pregnant women were formed at Vesoul and at Foch.

- Woman with no special maternal care (245 from Foch)
- Women with a maternal program consisting of breathing, relaxation, birthing pool. (683 from Foch)
- Women with the above maternal program and the Tomatis Method (170 from Vesoul and 53 from Foch)

At Vesoul, when the study started, 50 women had already benefited from the Tomatis Method (out of a group of 150 women). The study included only women, who were pregnant with their 1st child or their 2nd child using the Tomatis Method, and who wanted to participate. 170 future mothers (out of a group of 510 pregnant women) participated in the Tomatis Group.

This group was heterogeneous because it consisted of first births or subsequent births. The Tomatis group from Foch included 91.4 % of first births while the one of Vesoul had no more than 68.8%.

At Foch, the groups were not of equal size and did not include only 1st births

- A Control group of 245 women with no special maternal care
- A Control group of 683 women, traditional maternal care
- A group of 53 women, who did traditional maternal care plus the Tomatis Method 2)

Concerned Populations: The populations welcomed in the two maternity hospitals were marked by an important difference in the socio-cultural level.

- At Vesoul,- a rural majority
- At Foch, - an urban majority - 50 % university people.

The "typical" profile of the Tomatis group with Foch corresponded to women of an average age of 28 years old (an age slightly superior to the average of other groups). and a socio-economic milieu higher than that of other groups. Concerning the Vesoul, it was a hospital setting located in a rural locale. Age and educational level information was not available on the 20% of women who accepted to follow the Tomatis preparation. 3) Information In order that the pregnant women could be able to choose this or that method, information meetings were programmed. At Vesoul, the film, "The Ear In the Twentieth Century" was shown and those pregnant were able to consider the value of "the listening of the infant in utero." Before the course under the Electronic Ear, there were explanations given concerning the method and the effects on the level of dynamization and relaxation. At Foch, an information meeting was organized with the service personnel in the presence of Dr. Tomatis. He was able to explain the founding principles of the approach to the pregnant women. Otherwise, the descriptions were given to the participating women so that they were able to opt for this or that approach. The Tomatis Method was not imposed in any case.

4) The Program Under The Electronic Ear. One knows the importance of the progression of the sessions in the Tomatis Treatment. The procedure varies very little between the Vesoul and the Foch, at least at the level of the frequency of the number of sessions. There was one other minor difference that could affect the comparisons between the two hospitals.

At Vesoul, the Program consisted of:

- Three sessions of a half hour per day, three times a week for 4 weeks or 30 sessions in the third trimester.

At Foch, the Program consisted of:

- 2 sessions of a half hour per day, two times a week during 5 weeks or 20 sessions in the third trimester.

Objectives: The questions concerned the effects of the Electronic Ear during the period of the birthing or delivery bearing on diverse parameters, such as:

- The time of labor
- The method of delivery
- The state of the perineum.

And, a good many subjective elements were observed as going hand in hand with objective measures. We have established a comparative table of data from Vesoul and Foch, taking as hypotheses the following criteria. If there is a reduction of problems during the delivery and labor, we can expect an effect on the parameters cited above, such that at term, there is a better state of being of the child (this could be the object of a future longitudinal study). RESULTS AS TO BIRTH OR DELIVERY:

The goal of the study had been to measure the influence of sonic stimulation on different factors characterizing birth. Elements relevant to maternal supervision of vigilance were studied more particularly and they are

- The method of delivery
- The duration of labor
- The uterine dynamic
- Pathologies of labor
- Anesthesia
- The state of the perineum.

The factors of the fetal care and supervision were equally taken into consideration at Foch, but were not made the object of a systematic study at the Vesoul.

1) Cesarean - Forceps At the level of the method of birthing, it seemed that there was an obvious divergence between the results obtained at Foch, where the prevention of cesareans was not found to be ameliorated by the Tomatis Method and those discovered by Vesoul, where it has been stated over two years that there is a significant fall in the rate of cesareans. According to Dr. Klopfenstein, in the situation where the woman is more dilated, we can take the risk of an extraction from the genital area with forceps, which would lead to a decrease in the rate of cesareans, similarly, an augmentation in the rate of the use of forceps. Nevertheless, it is to be remarked or to be noticed that at the Vesoul, the rate of forceps largely decreased in the course of the last month and it is actually none - 0%. At Foch, the difference was not significant in the group, which followed the Tomatis Preparation and the group, which followed a traditional preparation. The numbers are identical. We see, for example, a significant gap between the two treatment groups and the Control group of women with no preparation. There we observed a third more cesareans and less

utilization of forceps. The explanation advanced is that women who expected a cesarean from the beginning, were not prepared otherwise. The women not following the preparation equally missed information and satisfactory follow-up and therefore the augmentation of risks. A remark was made at the same time concerning the maternity at the Vesoul. The women before giving birth by cesarean seemed nevertheless to be able to benefit from the meetings under the Electronic Ear to experience or live better their pregnancy and to stimulate their child better by the sounds.

2. Positions In what concerns the presentation by position, there was not observed any significant difference between the three groups at CMC Foch. At the Vesoul, in contrast, there was noticed that out of 170 cases, the rate of seatings passed from 4% to 2% when the future mother underwent stimulation under the Electronic Ear. At Vesoul, we remarked that the women who followed the Tomatis Method were completely relaxed and in that case the turning of the child succeeded at 99%. The turning is done manually by the doctor. The child does not turn alone because of the effect of the filtered music, but this favored the muscle relaxation, which is indispensable in the case of a turning.

3. Time of Labor There was a significant reduction in the time of labor, which Vesoul wants to go so far as to qualify as "spectacular". The definition of "time of labor" was further qualified into 3 sets of variables: the rapid birth (less than three hours), the average time of labor or length of labor and the time of dilation and the efforts to expel. Foch notes that the percentages of birthing women in less than three hours are significantly different among the groups. • 17 % of women from the Tomatis Group required less than three hours, as opposed to:

- 15% in the Control group and
- 6% in the Traditional Maternal care group.

At Foch, the time of dilation is about 3 hours, whichever the group. The length of the expulsive efforts is an average of 15 minutes for all the women. These numbers are approaching those of Vesoul, where labor is considered as "beginning with the dilation of the uterine collar under the effect of the contractions", which is understood a margin of error possible in their definition of this. Whatever the case, in both cases, the global time of labor is considered to be significantly reduced by the Tomatis Preparation.

4. Uterine Dynamic This domain remains to be explored. Even if it appears that at Foch, the Tomatis Method favors uterine dynamic, we were not able to isolate results in terms of that.

5. Anesthesia - Peridurale (epidural) The results between Foch and Vesoul differ sufficiently that we would want to look further into the question. At CMC Foch, it was observed that 90% of the women having followed the classical preparation, gave birth under anesthesia as contrasted to only 85 % of the Controls, or 85% of the Tomatis Group. There doesn't seem to have been a significant difference in the division between peridural and general anesthesia in the groups of women having followed a preparation, which tends to say that the Tomatis Method "respects the choice of women as to their desire or not for the epidural." At Vesoul, on the other hand, we note 17% of epidurals for the Tomatis group as

opposed to 28 % not prepared by this method. The mothers who benefited from the Electronic Ear sessions, did not want the epidural. Out of the 17% mentioned, there were 9% of the epidurals proposed by the team to help trigger labor. Out of the 8% remaining, 2% asked for it and 6% were proposed by the medical corps when the uterus was relaxing badly or resisting to the medication

6. State of the Peritoneum Dr. Klopfenstein at Vesoul has noted a decrease of 10% of the need for an episiotomy. According to him, it's not a question of a significant result. He sees in this finding the eventual proof of the fact that the peritinitus is more easily relaxed or distended after a Tomatis preparation. We can remark that 90% of the mothers attending the Tomatis course came to the birthing pool, which explains equally the satisfactory state of their peritinitum. The results obtained at Foch are identical between the women having followed a classical preparation and the Tomatis group • 70% with episiotomy
• 24% without episiotomy

7. Pathologies of Labor: The team of Foch put before a few results of hypothermia or the default of the progression of the contractions for which the midwives esteemed that "if the frequency of pathologies in the course of labor is identical, the type differs from one woman prepared by the classical method and non-prepared with one woman prepared by the Tomatis Method. In this last case, we note an increase in the temperature in 8% and a decrease in 11% of defaults of progression". By contrast, these phenomena have not been observed at all at Vesoul or where the Tomatis Method has been applied for the last few years. There is therefore a place to begin to look particularly at this problem.

RESULTS

AS TO RELAXATION:

The phenomenon of decreasing the pain during delivery or where the effect of relaxation obtained thanks to the Tomatis Method was studied at Vesoul and at Foch by using the Hamilton Scale of Anxiety. These anxiety levels were given in the beginning and the end of the pregnancy (before delivery). At Vesoul, 8 items of measurement were held as opposed to only 5 at Foch. To note, otherwise, the items chosen at Vesoul were themselves subdivided more so into subparts at Foch. The result of that was that the levels of anxiety differed for these two studies. This is a difference which may be imputed in the non-homogeneity of the measures in the two maternity hospitals. At Vesoul, there was not an augmentation note of the relative points of levels of anxiety nor of stagnation, but there was a net decrease of 9.15 points on average.

At Foch, we noticed from the beginning a particular profile with women wishing to do a Tomatis Preparation. Taking into consideration the global mien, there exists a significant difference of 3% between these women and those following the traditional preparation, translating the major anxiety of the Tomatis group. It is thought or stated in the end of preparation there is an completely beneficial amelioration in terms of the classical preparation on the level of anxiety. Troubles with sleep in particular were not found to be aggravated. It is the same case with the maternity hospital of Vesoul. The decrease in the rate of anxiety

on the statistical level is significant, because it passed from 5.73 points to 3.95 points. In these two maternity hospitals, the young women having benefited from the Tomatis sessions were able to witness much larger relaxation consequences and energetic results.

It is true that the same conditions of this preparation can play a part in both senses. The same women met regularly, they knew each other and they exchanged and shared and they felt better care by the medical team. OTHER RESULTS:

There were numerous testimonials that were sent to us in both the regions at Vesoul and Foch. At Vesoul, the women responded that:

- The quality of their dreams were peaceful and positive.
- They did not have the usual feeling of the end of pregnancy of being handicapped.
- The disappearance of back pains
- A normal walk
- A better listening
- An increase in creativity
- A great, spontaneous interest manifested for the child
- The fact that the "psyche was on top of things".

At Foch, the echo resounded equally and signaled the following:

- The appearance of a feeling of responsibility, associated with independence regarding one therapy or ideology.

- The phenomenon of conviviality living together with the fact that the quality of the work of the group.

- The calm of the babies.

- The well-being of the mothers following the deliveries, without apprehension of returning to the house.

- The quality of the mother/child relation

CONCLUSION:

- The beneficial effects of a preparation under the Electronic Ear manifests themselves principally in the decrease in the time of labor of about 45 minutes.

- Moreover, the uterine dynamic of these women was found to be ameliorated.
- The babies also had a superior birth weight imputable to a gestational age more advanced (40 to 41 weeks without menstruation). The results were the same at Vesoul.
- At last, the APGAR places in evidence that the Tomatis babies recoup faster and better than other babies. The results were the same at Vesoul.
- A Vesoul, the gain in the time in labor is equal, since it is a hour and a half which is very important. In the same way the instrumental intervention, (forceps, suction cup, spatulas), is less frequent (less 16 %).
- The study is limited by the fact that the 2 hospital populations were not rigorously identical. Hopefully, future studies can be better balanced. Nevertheless, there were clear benefits, not negligible, objective and quantifiable, which are particularly encouraging as to the use of the Tomatis Method in the care of pregnant women.

The facts of this comparison show consistency existing between the experience of the study at Vesoul and that undertaken at Foch. Nevertheless, there remains much to do, for example, new studies permitting to control the results obtained according to conditions of comparable experiments.

Studies because there are a number of questions that have been raised either by the midwives at Foch or the team at Vesoul.

One last point is to be underlined. This concerns the development of the "Tomatis Child" after birth. There are numerous testimonies of parents, pediatricians, educators, which have appeared because of the interest in the study. It remains now to prove and to demonstrate the affects on these children and to make some comparisons with other children, who did not have the Tomatis Method during the mother's pregnancy. Our task is far from finished. We anticipate that there will be differences in IQ, in the prevalence of learning difficulties, and in developmental delays.

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