A MODEL OF PREVENTION FROM PUERPERAL PSYCHIATRIC DISORDERS APPLIED TO TWIN PREGNANCIES

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TWIN BIRTHS IN EUROPEAN COUNTRIES (1)

Historical trends

The proportion of twin births has varied during the last century:
- the MZ* twins prevalence is relatively constant worldwide (0.3-0.4%)
- the DZ** twins prevalence varies considerably (between 0.6% to 4.5% in different populations)

- Infertility treatments
- Mean maternal age increase
- Use of pesticides and food additives

Twinning rates over the 20° century in seven developed countries

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*Monozigotes
**Dizigotes
TWIN BIRTHS IN EUROPEAN COUNTRIES (2)
The recent evolution

- **Denmark and the Netherlands**: increase of 64% in 25 years from 9.9 per 1000 in 1970 to 16.3/1000 in 1995

- **ITALY**: increase of 21% in the last decade: from 9.5/1000 in 1990 to 11.5/1000 in 2000

- **Policlinico Gemelli**: increase incidence of twin delivery from 1 to 2.5% between the 2000 and the 2004

A MODEL OF PREVENTION FROM Puerperal Psychiatric Disorders Applied to Twin Pregnancies
### More Frequent Obstetric Complications in Twin Pregnancies

<table>
<thead>
<tr>
<th>Obstetric Complications</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra Uterine Growth Restriction</td>
<td>× 6-10</td>
</tr>
<tr>
<td>Perinatal death</td>
<td>× 5-10</td>
</tr>
<tr>
<td>Preterm delivery</td>
<td>× 6</td>
</tr>
<tr>
<td>Eclampsia</td>
<td>× 4</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>× 3-5</td>
</tr>
<tr>
<td>Pre-eclampsia</td>
<td>× 3</td>
</tr>
<tr>
<td>Ante partum Haemorrhage</td>
<td>× 2</td>
</tr>
<tr>
<td>Post partum Haemorrhage</td>
<td>× 2</td>
</tr>
<tr>
<td>Anaemia</td>
<td>× 2</td>
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</tbody>
</table>
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- Risk Factors and Puerperal Psychiatric Disorders
  - Psychiatric history
  - Psychological distress
  - Social isolation, lack of support
  - Stressful life-events
  - Personality
  - Obstetric complications
  - Sociodemography

- Twin pregnancy presents a higher Post-Partum Depression risk than singleton;
- This risk is triple in MZ compared to DZ and even higher in Assisted Reproductive Techniques (ART) pregnancies.

2004 BIRTH OF TWINOLOGY GROUP

Creation of a Twinology team made up by psychiatrists, and psychologists sided with gynecologists and paediatricians in the global assistance to multiple pregnancies.

Medical care was integrated with a Double-Stepped psychological intervention:

- Psychodynamic therapy sessions
- Baby Observations -Ester Bick’s Method-

Psychological Womb

A MODEL OF PREVENTION FROM PUERPERAL PSYCHIATRIC DISORDERS APPLIED TO TWIN PREGNANCIES
By this preliminary project Twinology team achieved encouraging results assessed on the basis of:

1. Decreased anxious and depressive symptoms
2. Improved quality of mother-children relationship
3. Better patients’ compliance to medical cares

This initiative was initially conducted in a non-controlled regimen. Ten months ago we started two different case-control randomized studies:

1. TRASVERSAL STUDY including 30 pregnant women after the 20th week of gestation;
2. LONGITUDINAL STUDY including 30 pregnant women at any gestational age.
Inclusion criteria: Women at the age of 18-45; Gestational age = 20 for the transversal study, any gestational age for the longitudinal study.

Exclusion criteria: Women with repeated abortions (more than 2) and or with a psychiatric disease diagnosis according to the DSM-IV criteria.

Assessment:

- **Interview** with a member of the Twinology team.

- **Psychological support** trough weekly couple psychodynamic therapy sessions until three months after delivery (for case group pts only).

- **Psychometric Ratings** with Hamilton Depression Scale, Hamilton Anxiety Scale at the recruitment, before and within the third month after delivery; **Rorschach and Graphic tests** (family, individual, tree drawings) at the recruitment and six months after delivery; **Edinburgh Post-Natal Depression Scale** after delivery, 3 and 6 months later.

- **Baby observation**: in the Nursery, in Neonatal Intensive Care Unit, in Premature Unit and when possible at home.
At present a sample of 13 patients has been already recruited and 2 pts are beginning the study.

- **Mean age**: 34.4;
- **Kind of pregnancy**: 5 natural conceptions and 4 ART (2 multiples); MZ:DZ=2:7;
- **Mean period of gestation**: 23.5 week;
- **Type of study**: 4 trasversal, 5 longitudinal;

- **Type of delivery**: 5 Caesarean Sections, 4 natural deliveries;
- **Preterm babies**: 8;
- **Number of deaths**: 3.

Pts are divided through a randomization into two groups:
- **Case Group patients (3)** are submitted to: Interview; Psychometric Ratings; Psychological support and Baby Observation.
- **Control Group patients (6)** are ONLY submitted to the Interview and Psychometric Ratings.

We registered 5 refusals and 4 interruptions.
RESULTS

This pilot study is still in progress and more cases are needed to measure the effectiveness of our intervention.

Nonetheless clinical experience showed us interesting and encouraging evidences:

- Improvement of couple dynamics and decrease of fathers’ worries and difficulties observed at the beginning of the study.

- No pregnancies presented Puerperal Psychiatric Disorders.

- In case of preterm births or loss of one twin our intervention tried to provide an adequate space where coping with anguishes and mourning was possible.
### Limitations of the study:

- Shortness of in-patient care
- Difficulties in achieving a regular participation to out-patient care
- Low compliance to the programme

This research and the analysis of the most discussed issues allow us to draw some preliminary conclusions:

- Participation of both partners can promote a **better management of couple’s troubles and facilitate a consonant transition to parenthood**.

- Some categories: **Complicated and ART pregnancies** would benefit from a psychological support.

- **Psychological womb** in case of preterm births or loss of one twin seems to **decrease the risk** of fixation in the parents of lowering guilty feelings, facilitating their attitude and care towards the survived child.
The Twinology experience suggests that a skilled network would improve Health Care and Prevention of Puerperal Psychiatric Disorders.

This network may also allow an early identification of patients at risk and may facilitate the development of a psychological womb helping all couples achieving a healthy transition to parenthood.

Finally we TRUST that our Twin Maternity Care Model could be applied to every risky pregnancies.
“UN NIDO PER I GEMELLI”
Cure ostetrico-psicologiche nelle gravidanze gemellari

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&
SERGIO FERRAZZANI

Prefazione: PIETRO BRIA

ARACNE
EDITORE
Thanks for your kind attention

and

a special thanks to…

...TWINS!!!