HOW DO NUMBER PREGNANCY AND DELIVERY PROBLEMS AND MOTHERS’ PSYCHOLOGICAL HEALTH INFLUENCE ROOMING-IN TIME? A STUDY OF ITALIAN MOTHERS

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BABY CARE IN THE MATERNITY WARDS

OVERVIEW
Historical overview

• When hospitals became the predominant sites for birth in industrialized countries (early 20\textsuperscript{th} century), separation of mothers and babies became widely practiced

• Belief was that placing the infant in the hospital nursery after birth allowed the mother to sleep and rest and the baby to be protected from infections

• Newborns were cared for in hospital nurseries and mothers in postnatal wards

• Babies were brought to their mothers for feeding
• Remained in the hospital nursery until discharge.
FROM BABY WARDS TO ROOMING-IN
Current Practice: Rooming-in

• **Rooming-in:** During hospitalization after the birth, baby and mother stay together in the same room at night and day in the hospital

• Promoted by WHO/ UNICEF baby friendly hospital initiative (BFHI, 1991) and by the American Academy of Pediatrics

• The recommendation of WHO *encourages an entire 24 hours of staying together.*

• Developed to avoid any adverse psychological consequence on the mother–child relationship and to promote breastfeeding
Rooming-in *pros*

- Placing the infant in close proximity to the mother *enables the mother to respond* in a timely way whenever her infant shows sign of readiness to feed.

- Many institutions have now started to keep the mother and the baby in the same room with the aim to *promote skin-to-skin contact* (Serpero *et al.*, 2013).

- Uninhibited mother-infant interaction and close contact *promotes bonding*, encourages demand breastfeeding and results in more efficient infant suckling that are all essential in the regulation of breast-milk production (Jaafar, Lee, Ho, 2012) and *higher rate of breastfeeding* (Switzerland and Taiwan national longitudinal surveys: Forrester-Knauss *et al.*, 2013; Chiou *et al.*, 2014).
Rooming-in measured effects

- Rooming-in has shown effects on:
  - a lower incidence of breast engorgement and milk stasis (Wilde 1999)
  - better infant weight gain due to less energy consumption from crying during early infancy (Yamauchi 1990)
  - lower incidence of neonatal diarrhea (Mustajab 1986)
  - Significant reduce of hyperbilirubinaemia (Suradi 1998)
THE PRESENT STUDY
SANT’ANNA HOSPITAL ROOMING-IN STUDY
Sant’Anna Hospital R-in study

- Sant’Anna Hospital in Turin
  - an Italian excellence in the obstetrical-gynecological field
  - high number of annual deliveries
- Despite the 24hours rooming-in is applied since 2004, *some mothers still tend to refer to the nursery*

- Aim of the study → to help professional understanding women’s choice of R-in
  - Any difference on medical and psychological aspects?
Sant’Anna Hospital R-in study

• Variables investigated:

  • **Medical history issues:**
    • Cesarean delivery and anesthesia (as risk factors for applying R-in)
    • Early mother-baby contact
    • Parity: first-time-moms feel less competent and confident

  • **Psychological aspects:**
    • Desired/planned pregnancy enhancing the wish for contact and care
      (semi-structured interview)
    • High Sense of Coherence could help managing the birth event
      (Antonowsky, 1993)
    • Secure-autonomous mothers are more prompt and willing for this new
      experience of motherhood (ECR: Brennan, Clark & Shaver, 1998; AQS:
      Feeney, Noller & Hanrahan, 1994)
METHOD

SANT’ANNA HOSPITAL ROOMING-IN STUDY
Aim of the present study

- Medical interventions during delivery
- Mother’s Internal Sense of Coherence
- Amount of R-in (time)
Procedure

• Mothers recruited with the help of nurses (indicating the amount of time the mothers applied R-in) 2 to 5 days after delivery
  • In case of Caesarian delivery, the first night after delivery was not taken into account for nursery referrals

• No complications about mother’s or child’s health
Measures

- **Sense of Coherence Scale** -SF (Antonovsky, 1987)
  13-items self reports questionnaire evaluating individual sense of coherence. defined as a stable modality of perceiving and interpreting life events. 3 subscales:
  - Comprehensibility (cognitive component)
  - Manageability (instrumental component)
  - Meaningfulness (motivational component)

- Questionnaire on «Birth path» including questions about prenatal class. delivery. rooming-in and breastfeeding

- Medical records:
  - Type of delivery (Caesarian vs natural)
  - Analgesia (none, epidural, general)
  - Surgeries (none, episiotomy, laceration’s suture. ecc)
Sample

- 67 mothers
  - who gave birth at the Sant’Anna Hospital
  - all living in Turin, a large industrial city located in the northwest region of Italy
  - ages 24-43 (M = 33.65. SD = 4.28)
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<tr>
<th>Sample socio-demographics</th>
<th>Frequency</th>
<th>Mean (Std Dev)</th>
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<tr>
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<td>Common law</td>
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<td>Primaparous</td>
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<td></td>
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<td>No</td>
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<td>Attended Prenatal course</td>
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<tr>
<td>No</td>
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<td>Number of meetings</td>
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Rooming-in perception

Received information about rooming-in during pre-natal class

- Yes: 6%
- No: 37%
- Not attended: 57%
Rooming-in perception

Feeding type during recovery

- Exclusive breastfeeding (BF) 54%
- BF + liquids 22%
- BF + artificial 19%
- Artificial 5%

<table>
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<tr>
<th>Mothers’ reports</th>
<th>Nurses’ report</th>
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<th>Other (referred to nursery)</th>
<th>Total</th>
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<tr>
<td></td>
<td>day &amp; night</td>
<td>only day</td>
<td></td>
<td></td>
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<tr>
<td>N</td>
<td>29</td>
<td>6</td>
<td>2</td>
<td>37</td>
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<tr>
<td>%</td>
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<td>9.0%</td>
<td>3.0%</td>
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<tr>
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<td>30</td>
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<tr>
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<td>%</td>
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<td>50.7%</td>
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DATA ANALYSES AND RESULTS

SANT’ANNA HOSPITAL ROOMING-IN STUDY
Data Analysis

• Multiple logistic regressions were used to explore linear associations between medical interventions during delivery, three Sense of Coherence (SoC) scales and the extent of rooming-in.

• In addition we used multiple logistic regressions to explore potential moderating influence of a mother’s SoC on the association between number of problems experienced during pregnancy and medical interventions during delivery, and rooming in.

• Age and educational level were used as control variables in this study.
# Results – multiple logistic regression

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
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<tbody>
<tr>
<td>SoC comprehensibility</td>
<td>-.034</td>
<td>.074</td>
<td>.205</td>
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<td>.967</td>
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<td>1.119</td>
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<td>.930</td>
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<td>SoC meaningfulness</td>
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<td>.008</td>
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<td>.993</td>
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<td>Medical interventions (Sum)</td>
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<td>.067</td>
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<td>.934</td>
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<tr>
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<td>.563</td>
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<td>.453</td>
<td>9.873</td>
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</table>

<sup>a</sup> Dependent Variable: Nurse reported rooming-in
## Results – multiple logistic regression

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
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<td>SoC comprehensibility</td>
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<td>0.238</td>
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<sup>a</sup> Dependent Variable: Mothers’ self report rooming-in
Results

• Greater indications of problems during the delivery (summing up Caesarian delivery and surgery) ($\beta = -0.20, p < 0.01$) were associated to lower amounts of time a mother spent rooming-in.

• Moreover, greater indications of manageability (SoC) ($\beta = -0.17, p < 0.05$) were associated to lower amounts of time a mother spent rooming-in.

• No moderation effects were identified.
CONCLUSIONS AND FUTURE DIRECTIONS
SANT’ANNA HOSPITAL ROOMING-IN STUDY
Conclusions

- The extent of R-in is linked to medical interventions in the delivery room.
- Mothers who feel they can better manage life events, tend to use R-in less frequently.
- R-in constitute a great opportunity for mother-child health and relationship, but it cannot be imposed. (Rice, 2000, Dharamraj et al., 1981)
Future Directions

• Comparing, among mothers who did not apply R-in 24H, interviews’ contents (subjective and attachment issues)
• Enhancing nurses’ positive attitude: stressing the importance of not forcing R-in
THANK YOU FOR YOUR ATTENTION!

Any questions and comments?

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