Effectiveness, Intention, and Behavior in Creighton Model NFP Use

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January 2009
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Team

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Outline

- Creighton Model NFP
- NFP effectiveness studies
- Unintended pregnancy
- Unanswered questions
- Specific aims
- Design
- Implications
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Role of Creighton Model NFP

- Many NFP methods
  - Variety meets needs of different users in different settings
- Creighton Model FertilityCare
  - Standardized adaptation based on the Billings Method
  - Nursing model
  - Extensive medical development
  - 190 Creighton Model FertilityCare Centers in USA
Creighton Model NFP (CrM)

- Is taught as an integrated system of family planning and gynecologic health.
  - To conceive
  - To avoid
  - To understand and manage gynecologic health
- No attempt to prescribe to couples how it “should” be used.
- CrM studies take “all comers” in terms of intentions.
Creighton Model NFP (CrM)

- Women and couples encouraged to make their own choices about how to use the method for family planning.
  - Instruction to identify potentially “fertile” days and “infertile” days.
  - Intercourse on “infertile” days = “avoiding-related behavior”
  - Intercourse on “fertile” days = “achieving-related behavior”
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<table>
<thead>
<tr>
<th>Location year</th>
<th>Method</th>
<th>Couples</th>
<th>Pregnancy Rate per 100</th>
<th>Denominator cycles/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany 2007</td>
<td>Sympto-thermal, double check</td>
<td>900</td>
<td>0.6</td>
<td>Perfect use</td>
</tr>
<tr>
<td>New Zealand, India, Ireland, Philippines, El Salvador 1981</td>
<td>Billings Ovulation Method</td>
<td>869</td>
<td>3.2</td>
<td>Perfect use</td>
</tr>
<tr>
<td>Texas, USA 1999</td>
<td>Creighton Model</td>
<td>701</td>
<td>0.14</td>
<td>All</td>
</tr>
</tbody>
</table>

Frank-Herrmann et al 2007; WHO 1981; Howard & Stanford 1999
### Typical use pregnancy rates

<table>
<thead>
<tr>
<th>Location</th>
<th>Method</th>
<th>Couples</th>
<th>Preg. per 100</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany 2007</td>
<td>Sympto-thermal, double check</td>
<td>1046</td>
<td>1.8</td>
<td>Unintended pregnancy by prospective declaration to avoid for each cycle</td>
</tr>
<tr>
<td>International 1981</td>
<td>Billings Ovulation Method</td>
<td>869</td>
<td>22.5</td>
<td>Unintended pregnancy by prospective declaration to avoid within study</td>
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<tr>
<td>Texas, USA 1999</td>
<td>Creighton Model</td>
<td>701</td>
<td>17.1</td>
<td>Includes <strong>all</strong> pregnancy [intended+unintended]</td>
</tr>
</tbody>
</table>

Frank-Herrmann et al 2007; WHO 1981; Howard & Stanford 1999
Pregnancy rates in NFP studies

- Little controversy about “perfect use” or method-related pregnancy rates
- Controversy about “typical use” or use-related pregnancy rates
  - The large majority of pregnancies result from genital contact on a day known by the couple to be fertile.
- Because NFP can be used to conceive, which cycles and pregnancies should be included?
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Single question measure (PRAMS)

- Thinking back to just before you were pregnant, how did you feel about becoming pregnant?
  - I wanted to be pregnant sooner.
  - I wanted to be pregnant later.
  - I wanted to be pregnant now.
  - I didn’t want to be pregnant then or at any time in the future.
  - I don’t know.
Contraceptive use doesn’t necessarily correlate with intentions or attitudes

- U.S. National Survey of Family Growth, 1995
- 566 pregnancies during use of contraception
  - 68% resulted in unintended pregnancies
    - 25% happy about the pregnancy
    - 59% unhappy about the pregnancy
  - 32% resulted in intended pregnancies
    - 90% happy about the pregnancy

Trussell, Vaughan, Stanford, 1999
Mistimed- qualitative assessment

- “We planned it, we weren’t expecting it quite so soon, but we were hoping for it, so it came as a very pleasant surprise, we were very excited.”
  - 23 years, White, >HS Education, Religious

- “I have mixed emotions, we had tried, and so I guess in a way it was planned...I had wanted to get pregnant. We talked about it a lot to get me pregnant...I would just say to him I want a baby, I want a baby.”
  - 23 years, Hispanic, <HS Education, Religious

Stanford et al, 2000
Mistimed- qualitative assessment

“We were shocked at first… I just thought the birth control would work.”
- 20 years, White, >HS Education, Nonreligious

“It isn’t really wanted, so I am getting rid of it.”
- 18 years, White, >HS Education, Nonreligious

Stanford et al, 2000
Summary of qualitative investigation

- Intendedness of pregnancy is a multidimensional concept.
  - Wanting - desire for pregnancy that changes over time (before and after conception)
  - Planning - preparation, beliefs, intentions, sexual behavior
  - Wanting most relevant to pregnancy choices

Stanford et al, 2000
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What is the relationship between the pregnancy rates in contraceptive studies and pregnancy rates during NFP (CrM) use?
How does the fact that NFP (CrM) can be used to conceive as well as avoid pregnancy impact its understanding and use?
How can NFP (CrM) effectiveness be fairly evaluated and communicated to health professionals who wish to compare NFP (CrM) to other family planning methods?
How can NFP (CrM) effectiveness be fairly evaluated and communicated to women or couples who wish to consider it and compare NFP (CrM) to other family planning methods?
What is the relationship between childbearing motivations and intentions, sexual motivations and intentions, sexual behavior, and pregnancy in NFP (CrM) use?
What is the relationship between childbearing motivations and intentions, sexual motivations and intentions, sexual behavior, and pregnancy in use of any family planning method?
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Specific Aim 1

To evaluate CrM pregnancy rates during “perfect” and “typical use” to avoid pregnancy in a way that is directly comparable to the approach used in family planning effectiveness studies.

- Initial “face value” plus additional critical considerations
Specific Aim 2

- To evaluate pregnancy rates by the CrM NFP classifications, as done with the six prior CrM NFP effectiveness studies.
  - Use of specific behavioral denominators
Specific Aim 3

To evaluate the intention status of all pregnancies during CrM use according to standard measures of intended, mistimed and unwanted pregnancy while recognizing the significant limitations of these measures

- Initial “face value” plus additional critical consideration
Specific Aim 4

To explore the multiple dimensions of pregnancy motivations, intentions, and behaviors during CrM use by newer detailed measures.
Hypothesis 1

- In life table analysis, the pregnancy rate during perfect use to avoid pregnancy for CrM NFP will be about 1%.
Hypothesis 2

- The behaviorally determined avoiding-related pregnancy rate for CrM NFP will be about 6%.
Hypothesis 3

- The pregnancy rate during “typical use” without a previously stated intention to conceive will be higher than 6% but less than 23%.
  - CrM terms: a mixture of avoiding and achieving-related behavior
Hypothesis 4

The large majority of unintended pregnancies will be wanted by prospective and retrospective measures.
Hypothesis 5

- **Detailed measures of pregnancy motivations and intentions will be associated with and predictive of proceptive behavior and pregnancy.**
  - CrM terms: achieving-related behavior and pregnancy
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Design

- Prospective cohort, 300 new CrM users
- 10 of 190 CrM centers
- Recruitment and participation tracked
- CrM NFP taught in standard way
- Research assessment of intentions and motivations at beginning of each cycle and at intervals in study
Location of Participating Creighton Mode FertilityCare Centers
Analysis

- From standard contraceptive conceptual framework
  - Lifetable analysis

- From Creighton Model conceptual framework
  - Lifetable analysis

- In-depth assessment of motivations, intentions, behaviors, motivations, and outcomes
  - Event history analysis (i.e., Cox models)
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Implications

- Dialogue between contraceptive conceptualizations and NFP conceptualizations
- Insight into relationships between sexual and childbearing motivations, intentions, behaviors, and outcomes
- Insight into differences between “perfect” and “typical” use pregnancy rates for NFP and contraceptive methods
Implications

- Increased appreciation of NFP by health providers
  - CrM and other methods
- Functional referral lines between NFP teachers and health providers
  - CrM and other methods
Implications

- Increased utilization of NFP by couples
- Increasingly met need for family planning
  - Avoiding and conceiving
- Responsible sexuality and parenthood