Natural Family Planning (NFP): A Workshop for Pharmacists

Meet Our Guests

- **Guest #1: Rosemary Heron**
  - Program director of the Natural Family Planning Association, Toronto, ON
  - Teacher of Billings Ovulation Method for over 30 years at multiple clinic locations in GTA

- **Guest #2: Kathleen Leach**
  - Registered pharmacist and owner of independent Sutherland's Pharmacy in Hamilton, ON
  - Has both personal and professional experience in NFP

Outline

1. Define NFP
2. Importance for Pharmacists
3. PROs and CONs
4. Evidence of Efficacy: Avoiding and Promoting Pregnancy
5. Anatomy and Physiology of Reproduction
6. Women's Health and Restorative Medicine
7. Modern and Historical NFP Methods
8. Guest Speakers – Sharing Experiences
9. Conclusion/Questions
Definition of NFP:

“Methods for planning and preventing pregnancies by observation of the naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle, with the avoidance of intercourse during the fertile phase if pregnancy is to be avoided. No drugs, devices or surgical procedures are used to prevent pregnancy.”

Importance of NFP for Pharmacists

1) Comprehensive patient-centred care for every patient.

2) Educators and trusted health care professionals to provide a professional service.

3) Support couples who are struggling to achieve pregnancy.

4) Monitor women’s health, fertility and medical conditions.

5) Patients may be looking for alternatives for a variety of reasons.

6) Know the resources available in your community.

Pros and Cons of NFP

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural, safe, harmless</td>
<td>Perception of ineffectiveness, misconceptions</td>
</tr>
<tr>
<td>Reliable, effective</td>
<td>Abstinence, decreased spontaneity</td>
</tr>
<tr>
<td>Inexpensive</td>
<td>Stigma associated with use</td>
</tr>
<tr>
<td>Easy to learn, versatile, educational</td>
<td>Effectiveness highly dependent on compliance</td>
</tr>
<tr>
<td>Immediately reversible</td>
<td>Requires agreement between man and woman</td>
</tr>
<tr>
<td>Acceptable by cultures and religions worldwide</td>
<td>Observations seem time consuming</td>
</tr>
<tr>
<td>Allows a woman to monitor changes in her menstrual cycle and overall health</td>
<td>Need to be cognizant of your body</td>
</tr>
<tr>
<td>No surgery, manipulation, or unhygienic methods</td>
<td>No protection against sexually transmitted diseases</td>
</tr>
<tr>
<td>Plan, achieve or avoid pregnancy</td>
<td>Sexual intercourse during periods of infertility may lower libido and lubrication</td>
</tr>
<tr>
<td>Restorative reproductive therapy, treat infertility</td>
<td>Lack of public awareness, resources and quality education</td>
</tr>
<tr>
<td>Environmentally friendly</td>
<td>Increased anxiety, fear of pregnancy</td>
</tr>
</tbody>
</table>


Efficacy Avoiding Pregnancy: Modern NFP Methods

<table>
<thead>
<tr>
<th>Country</th>
<th>No. of Couples</th>
<th>Total # Months Use</th>
<th>Method Failure Rate (%)</th>
<th>Failure: Method + Incorrect Use (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>992</td>
<td>16,168</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>Tonga</td>
<td>282</td>
<td>2,053</td>
<td>0.35</td>
<td>0.70</td>
</tr>
<tr>
<td>Indonesia</td>
<td>453</td>
<td>5,456</td>
<td>N/A</td>
<td>2.40</td>
</tr>
<tr>
<td>WHO (5 countries)</td>
<td>725</td>
<td>7014</td>
<td>3.20</td>
<td>3.90</td>
</tr>
<tr>
<td>Creighton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.A</td>
<td>342</td>
<td>1,793</td>
<td>1.20</td>
<td>2.00</td>
</tr>
<tr>
<td>U.S.A</td>
<td>1,874</td>
<td>17,138</td>
<td>0.50</td>
<td>3.60</td>
</tr>
<tr>
<td>Symptothermal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>123</td>
<td>2,651</td>
<td>0.45</td>
<td>3.30</td>
</tr>
<tr>
<td>Germany</td>
<td>758</td>
<td>14,879</td>
<td>0.63</td>
<td>2.90</td>
</tr>
<tr>
<td>Belgium</td>
<td>58</td>
<td>940</td>
<td>0.00</td>
<td>1.70</td>
</tr>
<tr>
<td>France</td>
<td>626</td>
<td>6,746</td>
<td>1.13</td>
<td>6.50</td>
</tr>
</tbody>
</table>

Overall: NFP methods achieved 97.2-100% efficacy when used correctly!

Efficacy Avoiding Pregnancy: Contraceptives

<table>
<thead>
<tr>
<th>Method</th>
<th>Perfect Use Failure (%)</th>
<th>Typical Use Failure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Spermicide</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cervical cap (parous/nulliparous)</td>
<td>249/35</td>
<td>22/16</td>
</tr>
<tr>
<td>Sponge (parous/nulliparous)</td>
<td>2059/15</td>
<td>32/15</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Condom (male/female)</td>
<td>2/5</td>
<td>15/20</td>
</tr>
<tr>
<td>Combined pill</td>
<td>0.3</td>
<td>8</td>
</tr>
<tr>
<td>Microling</td>
<td>0.3</td>
<td>3</td>
</tr>
<tr>
<td>Depo-Provera</td>
<td>0.3</td>
<td>3</td>
</tr>
<tr>
<td>Intravaginal cone (copper/mirena)</td>
<td>0.6/0.1</td>
<td>0.6/0.1</td>
</tr>
<tr>
<td>Norplant</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Sterilization (male/female)</td>
<td>0.10/0.5</td>
<td>0.10/0.5</td>
</tr>
</tbody>
</table>

Overall: Contraceptives achieved 74-99.95% efficacy when used correctly!

The Menstrual Cycle

### Menstrual Cycle as a “Vital Sign”

**Causes of Menstrual Irregularity**

**Pregnancy**
- Endocrine causes
  - Poorly controlled diabetes mellitus
  - Polycystic ovary syndrome
  - Cushing’s disease
  - Thyroid dysfunction
  - Premature ovarian failure

**Acquired conditions**
- Stress-related hypothalamic dysfunction
- Medications
- Exercise-induced amenorrhea
  - Eating disorders (anorexia + bulimia)

**Tumors**
- Ovarian tumors
- Adrenal tumors
- Prostate tumors


### Efficacy of Promoting Pregnancy: NFP

#### Diagnostic Category Before and After NPT (NaPro Tech) for 108 Infertile Couples

<table>
<thead>
<tr>
<th>Diagnostic Category</th>
<th>Before NPT (N)</th>
<th>After NPT (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unexplained fertility</td>
<td>43</td>
<td>14</td>
</tr>
<tr>
<td>Unexplained miscarriage</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>Endometriosis</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Pelvic adhesions</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Infertility factors</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Male factor</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

#### Cumulative Outcomes per 100 Couples in NPT Evaluation and Treatment

<table>
<thead>
<tr>
<th>Variable</th>
<th>6 Months</th>
<th>12 Months</th>
<th>24 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couples (#)</td>
<td>108</td>
<td>52</td>
<td>25</td>
</tr>
<tr>
<td>Cumulative live births (#)</td>
<td>26</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>Birth rate (%)</td>
<td>24</td>
<td>32</td>
<td>38</td>
</tr>
</tbody>
</table>

Reference: Tham 2012.

### Pharmacist Success Story

- Maria Bizecki, BSP, ACPR, FCP, CFCPC.
- Clinical Pharmacist in Alberta.
- Fertility Care Practitioner – Certified Creighton Practitioner.
- Only one pharmacist and six doctors trained in NaPro in Canada.
- Leads a fertility care clinic out of a compounding pharmacy.
- Collaborates with patients and health care team to prescribe restorative reproductive therapies.
- Charges $300/hr for clinical consultations and $100/hr follow-up on interpreting charting results.

Reference: Maria Bizecki 2013.
### Introduction to NFP Methods

1) **Cervical Mucus Methods:**
   - Billings Ovulation Method
   - Creighton/NaPro Tech

2) **Multimodal:**
   - Sympto-Thermal
   - Marquette

3) **Historical/Other:**
   - Calendar Rhythm
   - Basal Body Temperature
   - Standard Days
   - Two Days

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### Billings Ovulation Method™

- Worldwide organization based in Australia, with standardized training and a governing body.
- Cervical mucus is an accurate bioassay for fertility.
- Billings teaches women how to interpret sensation and observe discharge of cervical mucus produced during her cycle.
- Sensation and discharge produce patterns of fertility and infertility so each woman can know when she is fertile or infertile.

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**Billings Ovulation Method™**

- **During menstruation:** potentially fertile
- **After menstruation:** dryness/no mucus or an unchanging mucus sensation and/or mucus.
- **Approaching ovulation:** mucus sensation/appearance changes from unchanging pattern, then drastically to peak slippery, lubricative sensation.
- **Fourth day past peak:** infertile state is maintained until the next menstruation.
- **See documentation for further details.**
Creighton Model (Fertility Care/NaPro)

- Creighton is an allied health profession with a governing body, accreditation and standardized university training.
- Creighton = Charting, NaPro = Treatment
- Modified and standardized scoring of mucus secretions using finger testing.
- Added clinical component including regular visits with a gynecologist, data collection and peer reviewed research.
- Costs about $800/yr for patient and $10,000 to complete one year certification training.
- See documentation for further details.

Sympto-Thermal Method

- Combines primary mucus and basal body temperature (BBT) along with secondary symptoms to validate fertility status.
- Symptoms include: menstruation, cervical mucus appearance, vulva sensation, abdominal pain, spotting, sensitive breasts, changes to cervix.
- Sensation and appearance of cervical mucus determines level of fertility, temperature rise confirms ovulation has occurred.
- See documentation for further details.
Sympto-Thermal Method

- Combines the sympto-thermal method with an added hormonal urine test.
- Clearblue Easy Fertility Monitor is used to measure urine levels of LH and estrogen.
- Better for achieving pregnancy than avoiding pregnancy.
- May add unnecessary level of complexity to monitoring.
- LH surge does not always indicate ovulation or health of follicle.
- Efficacy: n=204 women, correct use = 0.6%, typical use = 10.6% over 1 year of use.

Marquette Model

- Combines the sympto-thermal method with an added hormonal urine test.
- Clearblue Easy Fertility Monitor is used to measure urine levels of LH and estrogen.
- Better for achieving pregnancy than avoiding pregnancy.
- LH surge does not always indicate ovulation or health of follicle.
- Efficacy: n=204 women, correct use = 0.6%, typical use = 10.6% over 1 year of use.

Historical Methods of Mention

1. Rhythm/Calendar
   - Old model, less effective, based on probability.
2. Basal Body Temperature
   - No prediction of ovulation, not specific.
3. Standard Days
   - Easy to teach, less effective, based on probability.
4. Two Day
   - Simple to use, less effective, mucus presence not specific to context within cycle.
Conclusion

- NFP is a healthy and natural option which can help couples both achieve and postpone pregnancy.
- Pharmacists are trusted health care professionals who can help couples in need of reproductive counseling.
- There are many NFP models available which vary in efficacy, methods, and complexity: Billings, Creighton and Sympto-thermal are preferred.
- Know the resources available in your community for referrals or seek additional training.
- Any questions?

References


