Have you ever worked or participated in a centering pregnancy program?

1. Yes
2. No

Learning Objectives

1. Historical and traditional prenatal care
2. CenteringPregnancy®: brief history and research
3. Future research of CenteringPregnancy® model
4. Residency training in CenteringPregnancy® model

Historical Perspective Traditional Care

- Organized PNC: defined in 1929 by the British Ministry of Health
- Williams: 1st edition in 1903, no section on prenatal care
- Williams: 13th edition 1966 12 pages on prenatal care

Prenatal care: effectiveness and implementation McCormick, Siegel. 1999
“…the physician had but one interview merely to compute the expected date of confinement.” (Eastman et al, 1966)

Theoretically PNC should be a benefit for the pregnant woman.

Adequate care defined as 2-3 visits

“early birth prevents the initiation of prenatal care instead of vice versa.”

Alexander GR Public Health Reports July-August 2001

Prenatal Care Studies

RCT: Klerman, L. et al, compared augmented and standard prenatal care provided to Medicaid African American women. Approx N=300 in each group

Conclusions: augmented care improved satisfaction and knowledge, but did not reduce rate of low birth weight.


Prenatal Care Studies

RCT: nurse-midwifery prenatal care to reduce low birth weight: 5 regional state clinics, 1458 women at high risk for LBW

CNM Intervention:
patient education: identify the signs and symptoms of preterm labor, frequent examinations, stress reduction, social support, nutrition counseling weight gain, and substance-abuse

Obstet Gynecol. 1990 Mar;75(3 Pt 1):341-

Prenatal Care Studies

No advantage of the nurse-midwifery intervention over standard obstetric care for women...

1990 The American College of OBGYN

neither do they suggest any disadvantage.
1989 PHS Report “Caring For Our Future: The content of Prenatal Care”

- Report identified the pregnant woman, the fetus and infant, and the family as the focus of prenatal and postpartum care
- Challenged the basis of many routines of prenatal care
- Encouraged to increase education for women and families

PHS Report: Objectives for the Pregnant Woman

- Increase well being to improve self image and care
- Reduce maternal morbidity & mortality, fetal loss and pregnancy intervention
- Reduce risks to health prior to subsequent pregnancies and beyond
- Promote development of parenting skills

PHS Report: Objectives for the Fetus and Infant

- Reduce preterm birth, IUGR, congenital anomalies and failure to thrive
- Promote healthy growth and development immunization and supervision
- Reduce morbidities
- Reduce child abuse and neglect, preventable illness

PHS Report: Objectives for the Family

- Promote family development and positive parent-infant interaction
- Reduce unintended pregnancies
- Identify behavior disorders lending to child abuse and neglect
2001 Institute of Health

- Expert panel report concluded: Current delivery systems are not organized to meet today’s challenges. Care must be:
  - SAFE
  - EFFECTIVE
  - TIMELY
  - EFFICIENT
  - EQUITABLE
  - PATIENT ORIENTED

Why Centering?

- Transfers routine prenatal care from examination rooms into groups
  - Design: three components of prenatal care—risk assessment, education, and support—into one entity

Why Centering?

- CenteringPregnancy® integrates the three major components of care: health assessment, education, and support
  - 8-12 women with similar gestational ages meet together, learn care skills, participate in facilitated discussions, and develop support network

CenteringPregnancy®

- Time to build community, to learn self care skills, and gain knowledge about pregnancy, birth and parenting
  - 8-10 group sessions
  - Provides over 20 hours of contact time with provider
Centering Pregnancy® Model of Prenatal Care

- Implemented in over 110 clinical sites in the United States since 1998
- First program was piloted by Sharon Schindler Rising, a Nurse Midwife from Yale

Centering Pregnancy® + Family

- Family centered inclusion
  - Confidential
  - Supportive

Centering

- CARE OCCURS IN THE GROUP
- MEDICAL EVALUATION
- SELF ASSESSMENT
- FACILITATIVE DISCUSSION
- SOCIAL SUPPORT
- NETWORKING
- EDUCATION

Traditional

- Medical evaluation
- Health education
- Nutritional education
- Psychosocial needs
### Traditional Care vs. CP Group Care

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Group Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery of Care</td>
<td></td>
</tr>
<tr>
<td>1. Accepted model of prenatal care using one-to-one exam room visits</td>
<td>1. Prenatal care provided within the group space (community or conference room)</td>
</tr>
<tr>
<td>2. Care is provided by a credentialed prenatal provider</td>
<td>2. Care is provided through a partnership of a credentialed provider and pregnant woman</td>
</tr>
<tr>
<td>3. Variable continuity of provider throughout pregnancy</td>
<td>3. Continuity of care from a single provider</td>
</tr>
</tbody>
</table>

**Content of Care**

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Group Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Physical assessment completed inside an exam room by a provider</td>
<td>4. Patient participation in physical assessment and documentation. Exam occurs within group space</td>
</tr>
<tr>
<td>5. Education tends to be random and provider-dependent</td>
<td>5. Education runs throughout the ten sessions with trained providers and structured materials. Self-assessment sheets at sessions provide continuous feedback</td>
</tr>
<tr>
<td>6. Few opportunities for women to interact socially with other pregnant women</td>
<td>6. Opportunities for community building are present throughout prenatal/postpartum period</td>
</tr>
<tr>
<td>7. Care is focused on medical outcomes and recommended testing</td>
<td>7. Care is focused on health outcomes and personal empowerment. Testing such as blood draw can be done in group setting</td>
</tr>
</tbody>
</table>

**Patient access to involvement in care**

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Group Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Prenatal care records are maintained by the provider and not shared with the patient unless requested</td>
<td>8. Women contribute data to their own record by performing their weight and blood pressure as well as documentation. They are encouraged to keep copies of their personal records. Transparency of the medical chart should contribute to increased safety.</td>
</tr>
<tr>
<td>9. Provider schedule determines patient appointment dates and times</td>
<td>9. Schedule of group visits is available at first session which occurs between 14-16 weeks</td>
</tr>
<tr>
<td>10. Patient services are often fragmented (e.g., smoking cessation and nutrition counseling, WIC; labor and preparation)</td>
<td>10. Group provides “one stop shopping” with all services available within the group, providing services more efficiently</td>
</tr>
<tr>
<td>11. Limited opportunity for women to have contact with other women after delivery</td>
<td>11. Community building throughout pregnancy often leads to ongoing support postpartum</td>
</tr>
</tbody>
</table>

**Time spent by providers and patients**

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Group Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Variable waiting time</td>
<td>12. All care, education, and support take place within the 9-120 minute time period; no waiting</td>
</tr>
<tr>
<td>13. Difficult to adapt care to accommodate cultural issues</td>
<td>13. Group provides a setting that is supportive of cultural and language differences</td>
</tr>
<tr>
<td>14. Providers may find the provision of prenatal care to be boring and repetitive</td>
<td>14. Groups are fun and energizing for the provider and minimize repetition</td>
</tr>
<tr>
<td>15. Average visit time is limited by provider schedule</td>
<td>15. Total provider/patient time throughout pregnancy is approximately 20 hours</td>
</tr>
</tbody>
</table>

---

Why Centering?

Research: RCT

- Evidence and Practice: Group Prenatal care and Perinatal Outcomes
- Multicenter trial randomly controlled
- N=1047 women ages 14-25 to group or standard care
- 80% were African American
- 33% completed high school
- 33% employed


Research Outcomes: RCT

2006 PTD Stratified by Study Conditions

Women in groups:
- Less likely to have preterm births compared with those in standard care
- 9.8% compared with 13.8% no differences in parity, age, education or income
- This is equivalent to a risk reduction of 33% in preterm birth rate

RCT

- Effects were more dramatic with the African American women: 10.0% compared to 15.8%
- Less likely to have suboptimal prenatal care
- Significantly higher prenatal knowledge
- Felt more ready for labor
- Significantly greater satisfaction with care
- Breastfeeding initiation was higher

CentersingPregnancy® Studies

- 2003: Prospective matched cohort study compared impact of group/individual care on birth weight and gestational age at delivery N 458
  - Birth weights were higher but not significant statistically.
  - No difference in the cost of the care

Centersing in High Risk OB

- 2008-2011 CentersingPregnancy® for Hispanic women with Diabetes: 120 women
  - 71% used insulin or glyburide
- Conclusions:
  - Significantly improved glycemic control
  - 40% had adequate weight gain
  - Excellent adherence to group visits

Centersing Across The Lifecycle

- Centersing Parenting
- Centersing Diabetes
- Heart Health
- Smoking Cessation
- Pre/post surgery
- Breast Cancer and GYN
Centering and Resident Training

- 2007 Grant from the Mt Zion Health Fund on behalf of the UCSF National Center of Excellence in Women’s Health

Training and implementation of the model: all staff, residents, faculty, and support team

Resident Training

- Our Model: Coordination with the Residency Program Coordinator: Intern rotations

- UCSF Moffitt/Mt. Zion Hospital, 2-5 Residents per year

- San Francisco General Hospital, 2 Residents per year

Creog/APGO Abstract 2010

- Objective: To assess the feasibility and acceptability of integrating a CenteringPregnancy® model into traditional R1 obstetrical rotation

- 4 Interns facilitated CP groups in addition to maintaining their OB continuity clinic

McLean, T MD UCSF Resident
Residents were trained locally by a CNM from SFGH

They were co facilitated with either a CNM or OBGYN: 2 were in SFGH, 2 UCSF/Mt Zion

All Residents received the survey

Conclusions: Integrating CP into the traditional R1 continuity clinic is both feasible and valuable

Residents were more likely to perceive themselves as their patients primary provider

They had adequate time to provide exceptional patient care education

Residents who participated developed leadership, communication, and facilitation skills.

One Resident said, “that traditional clinic is a needed training ground to learn the basics of prenatal care, but it was within centering that I learned the art of caring for pregnant women”.

Survey 2011 Resident Comments

“I benefited from being in a novel program and had excellent one on one time with my preceptor and got to know my patients.”

“….I built a sense of responsibility for the patients given the enhanced continuity. If I missed something….the buck stopped with me.”

“….I really enjoyed the challenge of thinking about prenatal care in a different way.”
Survey 2011 Resident Comments

- “I would recommend Centering…..it is an amazing and empowering approach to medical care that shifts the locus of control about responsibility for health and well being back to where it should be……into women.”

Survey 2011 Comments

- “I learned prenatal care better in Centering than in my continuity clinic.”

Future Research

Must Include:

- Cost benefit of centering
- Expanded and more rigorous research: RCT
- Research on various populations
- Group provider characteristics
- Global studies
- Residency training

Thank You

- Sharon Schindler Rising CNM, MSN
- Joanna Laffey MPH
- Judith Bishop CNM MPH
- Suzanne Seger CNM MSN
- Holly Cost CNM MSN
- All of our residents who have lived with our growth spurts and chaos
Appendix

Why Prenatal Care?
- Healthy pregnancy and term delivery
- Health promotion and screening for women and family
- Referrals
- Access to community resources

Ongoing Studies
- Department of Paediatrics and Community Health Sciences, University of Calgary.
- A pilot study of CenteringPregnancy® at the Maternity Care Clinic, a family physician low risk maternity practice in Calgary, Alberta.
Ongoing Studies

- Wayne State University College of Nursing and School of Medicine, Ob/Gyn
  Translation of CenteringPregnancy® into clinical practice comparison of the effectiveness of CenteringPregnancy® with other care models.

- Yale University
  Principle Investigator of the CenteringPregnancy® randomized controlled trial involving over 1000 women in public clinics. Randomized trial with the Clinical Directors Network in New York: young women in the CenteringPregnancy® Plus model.

- The University of Texas
  Study: CP in 14 sites across Texas 2007-2009 enrolled over 400 mothers
  Variables: Perceived maternal stress, # CP visits, Maternal risks, Outcomes: infant birth weight, gestational age, premature labor.
  Findings: TBA in the summer of 2009

- Vanderbilt Department of OBGYN
  Resident Education and Knowledge Acquisition: Traditional Care vs. Group Care Provider Satisfaction Issues
  Socio-Economic Diversity in Centering Groups: Consumer Acceptance
Ongoing Studies

- Saint Louis University, School of Medicine
- Department of Family and Community Medicine
- Preconception health, prenatal care, and disparities in birth outcomes.

Ongoing Studies

- Osher Center for Integrative Medicine
- University of California San Francisco
- Effects of CenteringPregnancy® on psychological, autonomic, and psychoneuroendocrine aspects of the maternal stress and coping process.

Who was your Attending?

- CNM
- MD

62.50%

37.50%

UCSF Survey 2011

Please rank your F1 obstetric centering experience in the following areas. Scale strongly agree (5) to strongly disagree (1)

- I feel that I was able to learn basic prenatal care equally in the centering model and the traditional model of care: 4.25
- I think the centering model of care would be effective in the pelvic pain clinic: 5
- I think the centering model of care can be effectively introduced into high risk pregnancy clinics: 3.63
- I would like to have other centering group opportunities during my residency: 3.88
### Centering and GYN Care

- **UCSF 2011**: proposal to incorporate Centering model in pelvic pain and incontinence clinics.
- Nurse practitioner and physician
- Resident clinic

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The centering experience provided excellent training in building communication and patient education skills</td>
<td>4.5</td>
</tr>
<tr>
<td>The majority of the patients I saw in continuity clinics would identify me as their primary provider</td>
<td>3.75</td>
</tr>
<tr>
<td>I received adequate supervision from my CNM/MID attending during the centering rotation</td>
<td>4.5</td>
</tr>
<tr>
<td>My attending was supportive and allowed me to facilitate my centering group</td>
<td>4.5</td>
</tr>
<tr>
<td>The centering pregnancy training prepared me to facilitate a centering group</td>
<td>4.5</td>
</tr>
</tbody>
</table>