Group Prenatal Care Reduces Preterm Birth by One-Third, Improves Breastfeeding Success


**Summary:** In this multi-center randomized, controlled trial, investigators evaluated the effect of the Centering Pregnancy model of group prenatal care on perinatal outcomes, including preterm birth, birth weight, psychosocial outcomes, breastfeeding success, women's satisfaction, and health care costs. Eligible women were randomized to group prenatal care (intervention group, n=653) or traditional care (control group, n=394). All women attended their first prenatal visit in the traditional one-to-one setting. For their subsequent care, women in the intervention group attended 10 prenatal sessions with approximately 7 other pregnant women due in the same month. The facilitating obstetrician or midwife had a brief one-to-one encounter with each pregnant woman in the group space to evaluate fetal and maternal wellbeing and address individual concerns. While they waited for their individual assessments, women conducted self-care activities such as weight checks and blood pressure monitoring and recorded the results in their own charts.

RESEARCH ABSTRACT

**Title:** Youth Knowledge of Unhealthy Lifestyle Choices and Obesity Vary by Gender and Behavior

**Background:** Obesity continues to rise in children and teens and is associated with increased morbidities such as diabetes. In order to develop programs addressing these needs, social health marketing research is essential. Although studies have focused on adult and parental knowledge and attitudes of obesity, little is known regarding youth understanding of unhealthy lifestyle choices and resultant outcomes.

**Objective:** To determine factors affecting youth knowledge regarding unhealthy lifestyle choices and obesity in 2 zip codes.

**Design/Methods:** Surveys were collected (6/06-10/06) from 437 youth (mean ± SD=15.5±2.2 yrs) at community events, centers, schools, and in public areas in Mt. Vernon and Peekskill, NY. Chi square analysis was used.

**Results:** Youth identified themselves as 58.1% female (F), 41.4% male (M), 21.5% Hispanic, 12.8% White, 76.9% Black, 2.3% Asian, 1.8% Native Hawaiian or Other Pacific Islander, 5.9% American Indian or Alaska Native and 14% Others. Females more than males overestimated the prevalence of overweight among youth (63% vs. 37%, p=0.015). However, females better understood the role genetics play in overweight (67%F vs. 33%M, p=0.014) and diabetes (64%F vs. 36%M, p=0.005). Of those who did not realize the connection between overweight and diabetes, 87% were Black vs. 13% Non-Black (p=0.047). Poorer nutritional behaviors were associated with incorrect knowledge about the prevalence of overweight (p=0.001) and the link between television (TV)-watching and overweight risk (p= 0.002).
The remainder of the 2-hour sessions was dedicated to facilitated group discussion and education based on Centering Pregnancy program materials and client self-assessments. Women in the control group continued to attend prenatal visits at the clinic according to the traditional schedule or as otherwise clinically indicated. In the settings where the trial took place, traditional prenatal visits lasted about 10-15 minutes each for a total of 2 hours of prenatal care over the course of a woman's pregnancy. The group care model, on the other hand, yielded about 20 hours of prenatal care over the course of the pregnancy.

After controlling for confounding factors, women assigned to group prenatal care were 33% less likely to give birth preterm (10% in the intervention group versus 14% among controls). When the investigators limited the analysis to African American women, who represented 80% of all participants, the protective effect of the group care model was even stronger - there was a 10% preterm birth rate in the intervention group compared with 16% of controls, for a 41% reduction in risk. Statistical analysis revealed that the group model was most effective at preventing late preterm births (35-37 weeks), however a significant reduction in risk of preterm birth was observed at every week of gestation from 26 weeks forward. Although there was no significant difference in the overall risk of low birth weight (defined as less than 2,500 g), the researchers demonstrated a statistically significant "dose response" effect, where increased exposure to the group care model resulted in both longer gestation and higher birth weight.

Women randomized to the group care model were also more likely to initiate breastfeeding (67% versus 55%). They also scored significantly better on a pregnancy knowledge questionnaire, reported increased readiness for labor and birth, and were more satisfied with their prenatal care. There were no statistically significant differences in other clinical and psychosocial outcomes measured. Costs were similar across both models of prenatal care.

**Significance for Normal Birth:** That Centering Pregnancy's effect on preterm birth has not been matched by any medical or technological intervention reinforces an important lesson about what is good for mothers and babies. It is not surprising that care that builds women's confidence, mitigates stress, and teaches wellness and self-care would yield psychosocial benefits. What a medicalized view of pregnancy and birth too often fails to recognize, however, is that these same elements contribute to optimal clinical outcomes as well. In pregnancy, as in

---

**Lower Hudson Valley Perinatal Network News**

The Lower Hudson Valley Perinatal Network (LHVPN) is very pleased to announce that Heather Brumberg, M.D., MPH lead author on behalf of the LHVPN’s “Healthy Forum for Life” project (http://www.lhvpn.net/hfbfl.shtml) has received the National Perinatal Association Research Award presented at its 2007 Annual Clinical Conference held in New Orleans, LA last month. The award was for LHVPN’s abstract entitled “Youth Knowledge of Unhealthy Lifestyles Choices and Obesity Vary by Gender Behavior.” The abstract presents the results of the Market Research that was conducted as part of this Social Health Marketing Project. (See abstract on pg. 1)

The following four LHVPN abstracts were accepted for poster presentations at the 2007 National Perinatal Association conference:

- **The Efficacy of Employing the Great American Smoke out Model when Adapted for Perinatal Mood Disorders as “Community Health Education Day”**
  
  [http://www.lhvpn.net/ched.shtml](http://www.lhvpn.net/ched.shtml), Rebecca Moretto, BS, CHES; Cheryl Hunter-Grant, LMSW; Heather L. Brumberg, MD, MPH, FAAP.

- **The Efficacy of an Educational Program Addressing Newborn Abandonment**
  
  [http://www.lhvpn.net/meetingspre.shtml](http://www.lhvpn.net/meetingspre.shtml), Bonnie Reyna, MPH; Cheryl Hunter-Grant, LMSW; Paul Visintainer, PhD; Heather Brumberg MD, MPH.

- **Does the Efficacy of a Regional Perinatal Forum Conference as a Public Health Educational Instrument Change Over Time?**
  
  [http://www.lhvpn.net/meetingsspre.shtml](http://www.lhvpn.net/meetingsspre.shtml), Bonnie Reyna, MPH; Donna Dozar, RN, MS; Cheryl Hunter-Grant, LMSW; Susan Marchwinski, RNC, MS; Clare Nugent, RN; Paul Visintainer, PhD; Heather Brumberg, MD, MPH, FAAP.

- **Youth Knowledge of Unhealthy Lifestyle Choices and Obesity Vary by Gender and Behavior**
  
  [http://www.lhvpn.net/hfbfl.shtml](http://www.lhvpn.net/hfbfl.shtml) Heather L. Brumberg, MD, MPH; Bonnie Reyna, MPH; Cheryl Hunter-Grant, LMSW; D. Faulkner, PhD.
birth, an approach that values medical intervention and constant technological surveillance for problems is unlikely to be effective at enhancing an essentially healthy process. In pregnancy, as in birth, building a circle of support for an expectant mother enhances her ability to care for herself and her baby and cope with unfamiliar but normal emotional and physical changes. Caring for women holistically is not just "nice" it is good medicine.

Pregnancy is a normal physiologic state, though vulnerable to disruptions from chronic or acute stress, unhealthy behaviors such as smoking, and harmful conditions such as malnutrition or violence in the home. In the current prevailing model of prenatal care, visits are brief and counseling for nutrition, smoking cessation, and domestic violence concerns are often provided separately, contributing to fragmentation of care and creating unnecessary barriers to access. Centering Pregnancy, like all mother-friendly care, does not demand that the woman accommodate institutional routines and navigate complex systems but arranges care around her needs instead. This study reveals a forgotten outcome of putting the woman at the center and constructing a supportive environment around her: babies benefit, too.


**CONGRATULATIONS!**

To

Dr. Praveen Ballabh

on his research identifying a novel approach to a potential therapy for the prevention of brain hemorrhage in neonates.

Please go to:


to read a commentary by the NINDS News Service

*Arthritis Drug Shows Promise for Reducing Brain Hemorrhage in Premature Babies,*


For questions, please contact:

http://www.ninds.nih.gov/about_ninds/addresses.htm

---

Continued from page 1: Youth Knowledge of Unhealthy Lifestyle Choices

Surprisingly, correct knowledge about the link between TV-watching and overweight risk was higher among frequent TV-watchers (p=0.045), but lower among frequent video game players (p=0.009). Higher parental education was positively associated with correct knowledge about: TV-watching and overweight risk (p=0.013), the role genetics play in diabetes (p= 0.002) and the link between maternal diabetes and neonatal outcome (p=0.043).

**Conclusions:** Youth knowledge regarding obesity and resultant outcomes are significantly affected by demographic and behavioral factors. This research will be used to develop targeted public health initiatives in these two communities.

H L Brumberg, MD, MPH¹, B Reyna², C Hunter-Grant, LMSW¹, V Allen, MPH, CHES² and D Faulkner, PhD².

New York Medical College/Maria Fareri Children's Hospital, Westchester Med. Center, Valhalla, NY, United States and ²School of Public Health, New York Medical College, Valhalla, NY, United States.

---

**WELCOME!**

Howard Blanchette, M.D.

WMC welcomes Dr. Howard Blanchette as Director of the Department of Obstetrics & Gynecology. He is also Professor and Chairman of the Department of Obstetrics & Gynecology at New York Medical College. Prior to joining WMC, Dr. Blanchette was Chairman of the Department of Obstetrics & Gynecology at Danbury Hospital. He received his medical degree from McGill University of Southern California Medical Center in Los Angeles. During his career, Dr. Blanchette has held academic positions at Yale School of Medicine, Tufts University School of Medicine, Boston University School of Medicine, Harvard Medical School and University of Southern California School of Medicine. Recent awards include the New York Medical College Excellence in Teaching Award (2007) and the Danbury Hospital Department of Obstetrics & Gynecology Outstanding Resident Teaching Award (2006). He is also the current Chairman for the Residency Review Committee for Obstetrics & Gynecology. Here at WMC, Dr. Blanchette will be focusing on re-building the Obstetrics & Gynecology Dept. & establishing an outreach program to strengthen relationships with community hospitals and physicians.
**25th Annual RNICU Reunion**

They came from all over, and they had a blast!

On September 19, children newborn to 25yrs., who were once patients at the Regional Neonatal Center at Westchester Medical Center, came back to the hospital for a joyous occasion -- to celebrate the festivities surrounding the Regional Center’s 25th Annual Reunion. Since opening a quarter of a century ago, our Regional Neonatal Center has cared for more than 16,000 infants. On this day more than 200 former NICU patients, their families, physicians, nurses, and other hospital staff members participated in the celebration outside the front doors of Maria Fareri Children’s Hospital.

It was a gorgeous day, and the children fully enjoyed the Dora the Explorer Jumping House, playing horseshoes & musical instruments, eating cupcakes and listening to the band “A Fragile Tomorrow,” composed of RNICU graduates. A wonderful time was had by all!!

---

**State Perinatal Database Team & Perinatal Gazette Editorial Board**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Susan Marchwinski</td>
<td>RNICU/MFCH Coordinator, SPDS Coordinator</td>
<td>(914) 493-8590</td>
<td><a href="mailto:marchwinskisa@wcmc.com">marchwinskisa@wcmc.com</a></td>
</tr>
<tr>
<td>Clare Nugent</td>
<td>RN Neonatal Data Collection</td>
<td>(914) 493-8346</td>
<td><a href="mailto:nugentc@wcmc.com">nugentc@wcmc.com</a></td>
</tr>
<tr>
<td>Heather Brumberg</td>
<td>Neonatal Public Health Programs Director</td>
<td>(914) 493-8491</td>
<td><a href="mailto:heather_brumberg@nymc.edu">heather_brumberg@nymc.edu</a></td>
</tr>
<tr>
<td>Donna Dozor</td>
<td>Neonatal Data Collection, M.S.</td>
<td>(914) 493-8309</td>
<td><a href="mailto:dozord@wcmc.com">dozord@wcmc.com</a></td>
</tr>
<tr>
<td>Edmund LaGamma</td>
<td>Director Newborn Medicine, M.D.</td>
<td>(914) 493-8558</td>
<td><a href="mailto:edmund_lagamma@nymc.edu">edmund_lagamma@nymc.edu</a></td>
</tr>
<tr>
<td>Chaur-Dong Hsu</td>
<td>Director OB/GYN, M.D., M.P.H.</td>
<td>(914) 593-8987</td>
<td><a href="mailto:chaur-dong_hsu@nymc.edu">chaur-dong_hsu@nymc.edu</a></td>
</tr>
</tbody>
</table>

---

We are interested in providing you with a newsletter that is relevant and of interest to you. Please contact us with perinatal topics you would like to see addressed.

For a copy of our newsletter or to be placed on our mailing list contact us by phone or e-mail.

Please see below the NYMC neonatal web site address to locate other issues of The Perinatal Gazette:

http://www.nymc.edu/neonatology