# Exploring the Value of Group Obstetrical Appointments to Reduce Health Disparity

Helene M. Holbrook, FNP-C, DNP candidate

University of San Francisco

# I. Scientific Underpinnings for Practice

*Recognizes the philosophical and scientific underpinnings essential for the complexity of nursing practice at the doctoral level.*

A basic tenet of transformative power:

- People must obtain this for themselves; it cannot be given to them.
- No one can empower another person, because the achievement of power that effects transformation can only come from self-action.


Figure 1. Transformation for Health Framework.

# The group visit can be conceptualized as an extended provider's office visit where:

- Physical needs are met
- Medical needs are met
- Educational needs are met
- Social needs are met
- Psychological concerns can be dealt with effectively

# The CenteringPregnancy model brings women out of examination rooms and into groups for their care

- Design incorporates the three components of prenatal care, risk assessment, education, and support
- Women are placed into groups of 8 to 12 based on estimated dates of delivery and meet for ten 90-minute prenatal or postpartum visits at regular intervals
- Standard prenatal risk assessment is completed within the group setting
- Educational format is followed that uses a didactic discussion format
- Time is provided for women to talk and share with one another
- Emphasis is placed on their collective importance
- Women are encouraged to take responsibility for themselves; this leads to a shift in the client–provider power base

# Group Appointments CenteringPregnancy

- Time to share joys and concerns
- Build community
- Creative problem solving
- Efficient way to share information

# II. Organizational and Systems Leadership for Quality Improvement and Systems Thinking

*Recognizes the competencies essential for improving and sustaining clinical care and health outcomes, eliminating health disparities, and promoting patient safety and excellence in care.*

- What is “systems thinking”?
- How can the systems perspective change the way we view health disparity elimination?
- What are the different levels of systems? (universities and other training institutions, government, etc.)

# Interventions to reduce or eliminate health care disparities are based on four key areas

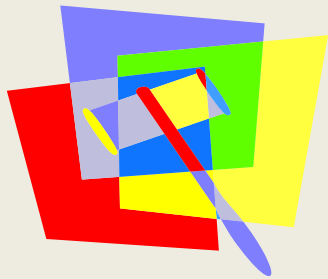
- Systematic identification, documentation, and definition of the specifics of the disparity
- Explanatory research on the etiology of the disparity
- Development and evaluation of the intervention
- Research translation and application of research results

(Larson, 2005)

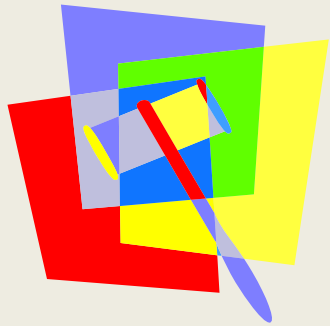
# Ethical Underpinnings

- Social determinants of health: stuff outside health care system
- Health disparities
- Social Justice
- Fair and equitable treatment of people
- Health equity and its determinants
- Fair distribution of primary goods
- Equal opportunity

Social determinants of health are
the *economic and social conditions*
that shape the health of individuals,
communities,
and jurisdictions as a whole.



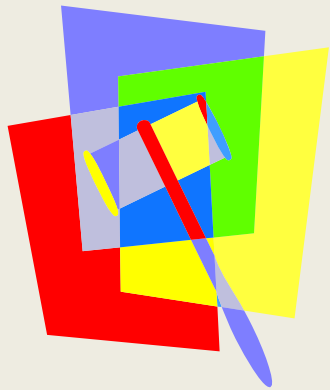
Social determinants of health are
the primary determinants of
whether individuals
*stay healthy*
*or become ill*
(a narrow definition of health).



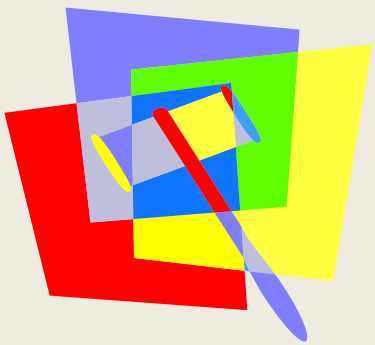
# Social determinants of health determine the extent to which a person possesses

- Physical
- Social
- Personal resources to
    a. identify and achieve personal aspirations
    b. satisfy needs
    c. cope with the environment

(a broader definition of health)

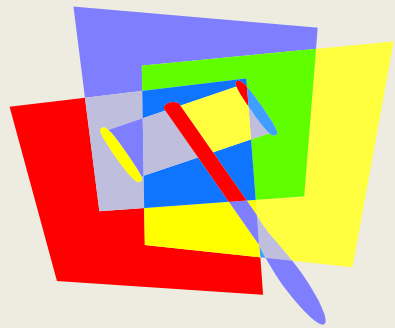


Social determinants of health
are about the
*quantity and quality of a variety of resources*
that a society makes available to its members
(Community Health and Wellness)



Health disparities can result from three main areas:

- Personal
- Socioeconomic
- Environmental characteristics among ethnic and racial groups



# Questions for future consideration *OR* “Pandora’s Box”

- Collective vs. individual responsibility for health
- Social justice vs. market justice and how these influence our perspective on disease and health.
- Disparity: Does defining disparity by white as the referent not assume that the current status of whites is the ultimate? How do whites in the United States need to compare to referents to whites in the Scandinavia countries?
- Minority: Does using this term allow oppression to continue? Are the experiences of all minorities the same? What about intra group differences?
- Could the concept of health literacy become a way to blame the victim of health disparities? Can literacy in the clinical setting that focuses on patient education help us to address literacy in the broader community about how to interpret health messages?

# Questions for future consideration *OR* ‘Pandora’s Box’ 2

- What is cultural competence? Could the absence or presence of cultural competence be related to health disparities? What is the limitation of striving for competency in the social environment? What is cultural humility?
- What do people mean when they say “you can not change structure?” If people believe they can not change the way the public health or medical systems are structured – then how might that belief influence the way they attempt to solve public health problems? How has population displacement affected disparity in health? How has the normalization of moving from one place to another in the US influenced out thinking about displacement?

# A broad set of factors related to racial and ethnic health disparities

- cost barriers
- poor services in poor communities
- cultural and communication barriers
- fear of the health care system
- problems in relationships between patients and providers affect trust, perceived eligibility, and need

# III. Clinical Scholarship and Analytical Methods for Evidence-Based Practice

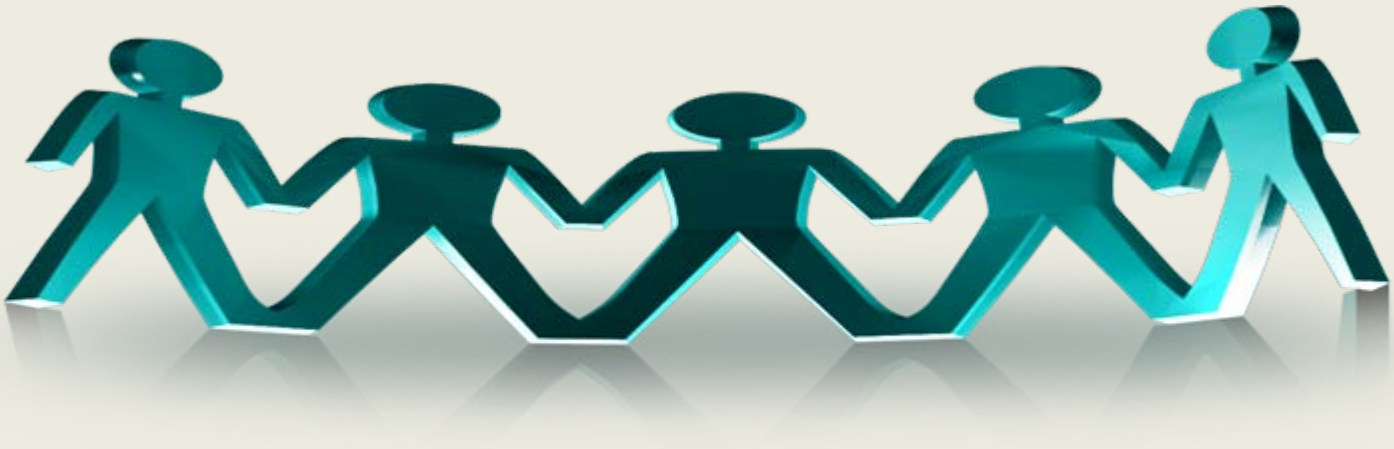
*Recognizes competencies essential for translation of research into practice, evaluation of practice, practice improvement, and the development and utilization of evidence-based practice.*

# The group appointment model (i.e., CenteringPregnancy Prenatal model) can meet many of the patient needs and health care goals to reduce health care disparities

- Improved self-management practices are positively influenced by prenatal education and group dynamics
- Promote improvement of health and access to care, in increasing pregnancy knowledge and rates of breastfeeding in the United States
- While women cannot often alter some of the risk factors that are associated with adverse perinatal outcomes (e.g. race/ethnicity and past obstetric history), they can adjust their activities to decrease the possibility of poor birth outcomes

# Research evidence shows positive social support relates to better pregnancy outcomes

- Improved fetal growth
- Increased infant birth weight even if premature
- Better compliance with keeping appointments
- Reduced Emergency Room utilization in 3rd trimester



# The provision of resources and information offered in group prenatal care

- Mitigate physical and psychological stressors in pregnancy
- Provide for the pregnant woman's  need for affiliation
- Provide opportunity for skill building, attitude change, self-responsibility
- Development of social support and community as members share their common life experiences.

# CenteringPregnancy Groups

• Women share the common focus of pregnancy, but come with different experiences and challenges

• Group collectively may create solutions or suggest coping mechanisms

• Group format allows for a variety of learning experiences—auditory, visual, and experiential—that upholds the principles of adult learning.

# The group appointment model of care is utilized in pregnancy, pediatrics, geriatric and chronic conditions management.

These models of care have demonstrated *evidence-based* applications :

- in reducing utilization of acute care services
- reduction in delivery costs
- improved quality of life, knowledge, health behaviors
- improved self-esteem
- patient and provider satisfaction

(Beck, 1997; Rising, 1998; Trento,2001;  Trento 2005).

# Kinship is another way of describing ‘family’ and translates well to the CP model of group appointments.

- Re-creation of a kinship network by bringing women out of the exam room into groups for augmented prenatal care (Centering Pregnancy, 2005).
- The women have their initial intake in a traditional obstetric care setting, and then form groups of eight to 12 women with similar due dates. The groups meet generally until six weeks postpartum.
- The focus is on the group interaction and discussion, although each woman has individual time to talk over concerns with health practitioners.
- Since the Centering Pregnancy Program begins early in pregnancy, women become invested in the wellbeing of group members, and a network or community is built.
- Research indicates such community building leads to increased support, decreased feelings of isolation, and higher birth weights, especially for infants delivered preterm. (Ickovics et al., 2003)

# IV. Technology and information for the improvement and transformation of patient-centered health care

*Recognizes competencies essential to manage, evaluate, and utilize information and technology to support and improve patient care and systems.*

# Confirming the value

Method of data collection:

- Pilot chart review
- Reviewing 50 charts who received prenatal care via group appointments, based on the CenteringPregnancy model, with an additional 50 charts who engaged in traditional, one-on-one prenatal appointments from a Northern California community health center.
- Retrospective chart review comparing:

a. Infant birth weight
b. Maternal weight gain
c. Breastfeeding retention in Spanish-speaking women
d. Gestational weeks at delivery

# Chart review tool

- A chart review tool used by the Academy of Pediatrics
- Tool has been used in other populations to conduct pilot studies to assess:

a) Feasibility of the planned investigation
b) Reliability of the data abstraction instrument
c) Effectiveness of the protocol
d) Availability of the data
e) Address any sampling concerns.

Traditional versus Group Prenatal
Table 3

| | Traditional | Group |
|---|---|---|
| Weight gained during pregnancy | 28 lbs. | 24 lbs. |
| Birth weights | 13 > 4,000 g | 3 > 4,000 g |
| Macrosomia | 24% | 8% |
| Weeks gestation at delivery | 39.17 | 39.58 |
| Number of women breastfeeding at delivery | 50 | 48 |
| Number of women breastfeeding at postpartum check | 50 | 47 |

| | Traditional | Group | t = | P .05 |
|---|---|---|---|---|
| Weight gained during pregnancy | 24.73 | 25.15 | .85 | NS |
| Birth weights | 3504.40 | 3570.55 | .53 | NS |
| Weeks gestation at delivery | 39.17 | 39.49 | .27 | NS |

| | | | | |
|---|---|---|---|---|
| *Macrosomia | 13>4,000 g | 3 >4000 g | | |
| Birth Weight >4000 gm | 24% | 8% | | |

| | | |
|---|---|---|
| Number of women breastfeeding at delivery | 50 | 48 |
| Number of women breastfeeding at postpartum check | 50 | 47 |

# Review of data
# Group appointments

- Average of 24 pounds of weight gained for pregnancy
- 3 birth weights >4000gm=8% macrosomia
- An average of 39.58 weeks gestation at delivery
- 48 listed breastfeeding at delivery
- 47 listed breastfeeding at postpartum check

# Review of data
# Traditional appointments

- Average of 28 pounds of weight gained for pregnancy
- 13 birth weights >4000gm=24% macrosomia
- An average of 39.17 weeks gestation at delivery
- 50 listed breastfeeding at delivery
- 50 listed breastfeeding at postpartum check

# Risks of Macrosomia

- Early links to developing DM
- Unclear if obesity set up this early leads to earlier more long term disability associated known risks
- Links maternal diet and metabolism to fetal outcomes

# Why study these outcomes?

***Factors associated with increased risk for overweight or obesity in infancy and early childhood include***:

- excessive maternal weight gain
- smoking during gestation
- shorter-than-recommended duration of breast-feeding
- suboptimal amounts of sleep during infancy

***Exposures during early development program a person's long-term regulation of energy balance and may have epigenetic effects***:

- exposures probably influence the development of hypothalamic circuits that regulate body weight
- endocrine pancreatic function
- changes in the proportion of lean versus fat body mass
- and other cycles of metabolic programming

# Identifying Needs for Future Research and Assessment

- Research to identify a method by which comparison of pregnancy trajectory and birth outcomes in-group versus traditional appointments needs to be explored. (RCT, Cohort)
- Group prenatal care based on the CenteringPregnancy model is an innovative model of care and data is available for review.
- More study to define the optimal population for group care.
- The more data and understanding of what improves prenatal knowledge, satisfaction and access to care will improve the pregnant woman and infants outcomes.
- Patient centered group care as modeled with the CenteringPregnancy (CP) model remains dedicated to assuring culturally sensitive and appropriate care to the specific group needs.

Creation of a favorable intrauterine environment through optimal maternal nutritional and exercise guidelines may reduce

- fetal macrosomia
- birth injury
- cesarean delivery
- later predisposition toward childhood obesity.

| Complications of Childhood Obesity. | |
|---|---|
| Psychosocial | Poor self-esteem<br>Anxiety<br>Depression<br>Eating disorders<br>Social isolation<br>Lower educational attainment |
| Neurologic | Pseudotumor cerebri |
| Endocrine | Insulin resistance<br>Type 2 diabetes<br>Precocious puberty<br>Polycystic ovaries (girls)<br>Hypogonadism (boys) |
| Cardiovascular | Dyslipidemia<br>Hypertension<br>Coagulopathy<br>Chronic inflammation<br>Endothelial dysfunction |
| Pulmonary | Sleep apnea<br>Asthma<br>Exercise intolerance |
| Gastrointestinal | Gastroesophageal reflux<br>Steatohepatitis<br>Gallstones<br>Constipation |
| Renal | Glomerulosclerosis |
| Musculoskeletal | Slipped capital femoral epiphysis<br>Blount's disease*<br>Forearm fracture<br>Back pain<br>Flat feet |

* Blount's disease is a growth disorder of the tibia that causes the lower leg to angle inward (tibia vara).

# V. Health care policy for advocacy in health care

*Recognizes the responsibility nurses practicing at the highest level have to influence safety, quality, and efficacy of care, and the essential competencies required to fulfill this responsibility.*

# Group prenatal appointment model address racial and ethnic disparities

- Racial and ethnic inequalities in health care in the United States are mediated by social class differences among patients
- Understanding inequity framework can tackle racial and ethnic inequalities in health care in the United States
- Health services interventions, such as CP prenatal groups, are likely to play a significant role in reducing racial and ethnic health disparities
- Group appointments target high-risk populations, focus on the most important contributing factors for a given community, population, or disease condition, use culturally and linguistically appropriate methods, include measures of quality of care and health outcomes, and prioritize dissemination efforts.

(United States Department of Health and Human Services {USDHHS}, 2000)

# Groups can reduce disparities

- Group appointments target high-risk populations
- Focus on the most important contributing factors for a given community, population, or disease condition
- Use culturally and linguistically appropriate methods, include measures of quality of care and health outcomes, and prioritize dissemination efforts

# VI. Interprofessional collaboration for improving patient and population health outcomes

*Recognizes the critical role collaborative teams play in today's complex health care systems and the competencies essential for Doctorally prepared nurses to play a central role on these teams.*

# System *Re*-design
# '*Re*-Branding' Group Appointments

- CenteringPregnancy prenatal care model "it holds the potential for a revolutionary redesign of prenatal health care delivery."

  (Rising, 2004)
- Patient satisfaction is the key to success
- Focus on access and cost as primary issues
- *See more patients?* Because clinicians' capacity has already been stretched to maximum tolerance, the result is generally less time for the traditional provider office visit
- Investment in group appointments as a exceptional, evidence supported model of care

# VII. Clinical prevention and population health for improving the nation's health

*This essential added to original seven in response to:*

- IOM 2001 call for transformation "…of health professional education in response to the changing needs of the population and the demands of practice."
- Healthy People 2010 support of IOM and objective to include "core competencies in health promotion and disease prevention" in clinical education
- In consideration of nursing's longstanding focus on health promotion and prevention

# Summary

Group visits offer *staff*:

- New/satisfying way to interact with patients
- Efficient use of resources
- Improves access
- Uses group process to help motivate behavior change and improve outcomes
- Patients have demonstrated early and sustained chronic disease like obesity, research concerned that chronic illness and life expectancy will be worse than originally projected. Access and opportunity to learn may impact not just the present but future generations.

# Summary

Group Visit offer *patients*:

- Extract the information they need for their medical care
- Make decisions that affect family and community
- Makes sure information creates knowledge
- More patient empowerment lends validity to their questions and meeting expectations
- More involvement with their outcomes
- Better reasoning and choice making

# DNP Role and Leadership Potential

- Eliminating health disparities requires a greater understanding of the factors that contribute to their development. Where is the community in all this?
- Intra-group studies are useful for identifying specific patterns, unique risks and interactions that can better integrate the social behavioral, and physiologic factors and that can improve intervention programs.
- Community partnership and knowledge of social context help define both theoretical validity and acceptability. The studies are useful over time if used to generate new perspectives and variables for future research. Regular opportunities to meet and discuss process, affect legislation, make groups dynamic solutions.

# DNP Role and Leadership 2

- Group appointments offer an effective tool for better managing backlogged practices by increasing productivity and use of existing resources
- Work well in fee-for-service and capitated healthcare environments
- Focus on enhanced patient care
- Effective if appropriately supported (system failure seen with withdrawal of scheduling and behaviorist/secondary group support person
- Necessity of data collection in a timely fashion to validate expected outcomes as predetermined by group facilitator/administration
- Data supports continuous quality improvement in the system

# DNP Role and Leadership 3

With the pilot study results comparing group and traditional prenatal appointments

a. Macrosomia: Is this a result of patient diet? Weight gain was not SS between groups so composition of diet is of interest
b. Better tools to measure patient satisfaction have been obtained and approved for use. Being piloted presently in a small medical resident survey and will be introduced to CP group evaluation process. Developed by University of Illinois, lead researcher now in contact with community health center

# Advanced Practice Nursing Focus

As a DNP graduate prepared for an FNP role

group appointments demonstrate

- application for practice
- reflect specialized knowledge (patient centered focus, CP group model)
- expanded responsibility and accountability in the care and management of individuals and families
- competencies in direct practice and in the guidance and coaching of individuals and families through developmental, health-illness, and situational transitions

  (Spross, 2005)

# The direct practice of DNP Nurse Practitioner utilization of Group Appointments

- Uses holistic perspective
- Formation of therapeutic partnerships to facilitate informed decision making
- Positive lifestyle change
- Appropriate self-care
- Advanced practice thinking
- Judgment
- Skillful performance
- Use of diverse, evidence-based interventions in health and illness management (Brown, 2005)

# DNP FNP understanding of the practice context of individuals via group appointments

- document practice trends
- identify potential systemic changes
- make improvements in the care of their particular patient populations in the systems within which they practice

Thanks Helene for the feedback about the meeting topics.

The macrosomia finding is quite amazing. We know that obesity in children is highest in Latinos - to see this macrosomia in *newborns* in the traditional cohort but not in the group cohort is pretty amazing. Please let me know if I can be of help to you to pull another 100 charts to verify this.

Thanks so much Helene!!! Would you like to present this at a noon conference? If so - let me know and I will see what I can arrange.

karen

On Fri, May 7, 2010 at 6:33 AM, Helene Holbrook <heleneholbrook@gmail.com> wrote:
slides 29,30,31 have the pertinent data verified with a t test!
Listened in yesterday but was late due to a patient, I think the concept of training the trainer makes sense and keeping it under your roof or maybe piloting a program via UC Davis outreaching to all their residencies and including interested staff makes another network.
The homemade food issue stems from food allergies (Peanut) and liabilities not just from patients but from their support people that attend groups.
You see it from school/PTA, church, airlines on out.
The norm for macrosomia in US is 10%, group had 8%, traditional had 24%. I hope to pull another 100 charts evenly divided to see if I can reproduce this.
The patient satisfaction tool used (you reviewed) is at a literacy level but the developer said you need a questionnaire of such length to get validity and
setting sights too low, perpetuates such a low norm... One might be able to pilot such a questionnaire read to group and scored by patients.
Please feel free to distribute information as you need to.

--
Helene M. Holbrook C-FNP
heleneholbrook@gmail.com
“You did what you knew how to do, and when you knew better, you did better.” Maya Angelou
--
Karen Burt MD
Director, Integrative Health Program

Coordinator, Group Visits CCRMC
(925) 370-5611 kbburt@gmail.com

# References


Ickovics, J.R., Kershaw, T.S., Westdahl, C., Rising, S.S., Klima, C., Reynolds, H. and Magriple, U. (2003) Group prenatal care and preterm birth weight: results from a matched cohort study at public clinics. *Obstetrics and Gynaecology*, 102, (5). 1051-1057.

Norbeck, J., Anderson, N. (1989) Psychosocial predictors of pregnancy outcomes in low-income black, hispanic and white women. *Nursing Resource*.38.204-209.

Rising, S. (1998) Centering pregnancy. An interdisciplinary model of empowerment. *Journal of Nurse-Midwifery*. 43(1).405-411

Rising, S.S., Kennedy, H.P., Kilma, C.S.(2004) Redesigning Prenatal Care Through CenteringPregnancy. Journal of Midwifery Womens Health.49 (5). 433-442.

Trento, M.B., Passera, P., Borgo, E, et al. (2005). A 3-year prospective randomized controlled clinical trial of group care of Type I diabetes. *Nutrition Metabolism Cardiovascular Diseases, 15*. 293-301. Doi: 10.1016/j.numecd.2004.12.005

Trento, M.B., Passera, P., Tomalino, M., et al. (2001). Group visits improve metabolic control in type 2 diabetes: A 2 year follow-up. *Diabetes Care*.(24). 995-1000. Doi: 10.2337/diacare.24.6.995.

U.S. Department of Health and Human Services (USDHHS). (2000) *Healthy People 2010* (Conference Edition). With Understanding and Improving Health and Objectives for Improving Health Washington, DC: U.S. Government Printing Office, Retrieved October 29, 2009, from http://www.healthypeople.gov