Perceptions of Significance Regarding Prenatal Care Among Multiparous Women

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Learner Objectives:
- The learner will identify the problematic issue of maternal non-adherence in seeking prenatal care services (the need for research)
- The learner will understand that maternal decision-making regarding prenatal care adherence is influenced by complex, multifactorial issues (including the lived experience)
- The learner will appreciate, from theory guided inquiry, maternal perception of significance regarding prenatal care among multiparous women
- The learner will recognize strategies to address maternal non-adherence in practice

Conflict of Interest: There was no conflict of interest. No sponsorship or commercial support contributed to this research
Problem Statement

Maternal non-adherence: to care problematic, persistent, & pervasive globally

• Nonadherence is linked to maternal and fetal morbidity & mortality (Ziyo et al., 2009, Alemeida et al., 2007).

• The phenomenon of maternal non-adherence is not understood

• Multiple factors have been identified, linking groups of women with shared risk (Balaam, et al., 2013; Haddrill, et al., 2014; Heaman et al., 2014; WHO, 2015)

• Multiparous patients have a history and a context for appreciating care. They are more likely to behave in health compromising behaviors with subsequent pregnancies (Okah & Cai, 2014)

• **Aim:** To gain understanding through inquiry and exploration, compilation, and analysis of data of the perception(s) of significance regarding prenatal care among multiparous maternal patients. The aim is to facilitate practice change to improve maternal adherence & health outcomes
Background & Significance

- Prenatal care has been identified as the most important factor in determining maternal & fetal outcomes (Perinatal Care Recommendations, 2011)
- Prenatal care has been shown to influence outcomes (Ziyo et al., 2009)
- Multiple factors have been associated with decreased utilization of care
- Learning barriers exist in pregnancy (Stark, 2001; Stark, 2006)
- Maternal patients experience decreased perception of risk (Lee, Ayers, & Holden, 2012)
- Multiparous behavior is influenced by expectation and previous experience (Kumbani, Chriwa, Malata, Odland, & Bjune, 2012; Okah & Cai, 2014)
Analysis & Synthesis of Previous Research: Data Gaps

Research has failed to identify a direct causation/etiology for non-adherence.

Previous research focused on groups of maternal patients as sub-populations.

Contradicting findings have been demonstrated in previous research.

Data Gap: Research Opportunity

The perceptions of prenatal care significance among individual multiparous women, based upon their lived experience and their identified need for care, has not been explored in the literature.
Research Guided Methodology: Directed Content Theory

- **Gaps**: Individual perspectives, interpretations, & perceptions of prenatal care significance have not been explored among adherent multiparous women.

- **Paradigm**: Constructivist: Individuals have personal (individualized) histories, experiences, cultures, & beliefs that shape their understanding & behavior.

- **Implementation/Method**: Semi-structured 1:1 interviews with questions derived from theory & research, code/analyzed data to be grouped into thematic concepts/utilization of a Directed Content Approach using the Health Belief Model.
Theory: The Health Belief Model
(Rosenstock, Stretcher, & Becker, 1988)

- Individual Perceptions
- Modifying Factors
- Likelihood of Action

- Perceived susceptibility to problem
- Perceived seriousness of consequence to problem
- Perceived severity & risk

- Influencing factors including knowledge & socioeconomic status
- Perceived threat of disease or illness
- Knowledge, education, symptoms, beliefs & awareness

- Perceived benefit vs. barriers to behavior change
- Likelihood of behavior change
Research: Site & IRB Approval

• **Data Collection**: Triangulation of data
  – Qualitative, semi-structured, audiotaped interviews (transcribed verbatim) +
  – researcher notes/observations + demographics

• **Population Sample**: OB practice in the Western region of Upstate New York. A multidisciplinary practice

• Patients meeting **inclusion criteria** were recruited as they presented for care
  – Patients were given a handout & verbal explanation of the study & data collection
  – Patients signed consent if they agree to participation
  – Eligible participants were recruited until the data saturated & meaningful themes emerged
Sample: Collected over Four (4) Months  
10 Multiparous Patients Initiating Care in the  
First Trimester of Pregnancy

Demographics

Age, employment status, insurance, race, gravida/para,  
highest level of education completed, & self-reported support in  
transportation, financial and social aspects

Inclusions

Multiparous maternal patients over 18, 1st trimester, English speaking,

Exclusions

Previous loss (stillborn, spontaneous or missed abortion), previous fetal  
anomaly, prisoners & those incarcerated or in-patient psychiatric  
patients at the time of the encounter
Research Method: Qualitative Semi-Structured 1:1 Interviews with Directed Content Approach

• Validity: Inquiry (questions) derived from research and theory-based
  – Sample selection of inclusion/exclusion criteria to control for confounding variables, with demographics for comparison
  – Data intake and analysis methods
  – Instrument: Atlas Ti7©

• Reliability & methods to reduce researcher bias
  – Semi-structured, qualitative, directed content approach
  – Same researcher for all interviews
  – Same eight questions posed in same sequential order
  – Data intake and analysis
  – Qualified inter-rater reliability
## Demographics of Population Sample

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<th></th>
<th>Age</th>
<th>Gravida</th>
<th>Para</th>
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<td>Social (S) Transport (T) Financial (F)</td>
<td>Divorced (D)</td>
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Interview Questions Derived from Theory and Literature

1. Tell me what prenatal care visits mean to you
2. What are the three most important things you can do for your health and your baby when you are pregnant?
3. How does your need for care compare to other women in terms of risks or problems?
4. What do you expect to happen when you come to your prenatal care visits?
5. What do you expect will happen if you miss prenatal care visits?
6. Tell me how your need for prenatal care with previous pregnancies affects the way you feel about prenatal care with this pregnancy.
7. What would make prenatal care visits valuable to you?
8. Is there anything else you would like to tell me?
Data Collection & Analysis

Data obtained from interviews: transcribed verbatim & charted according to question & participant

Data was analyzed: Clustering, grouping, & labeling the codes in a charted format. Inter-rater reliability was confirmed separately, adding to credibility & auditability of findings. Data was sorted in a matrix by question and by participant, and coded with notes.

A matrix of grouped themes was constructed from the focused codes.

Data was analyzed using Atlas Ti7© software. Data was coded a minimum of three times for key words, & again for emerging themes. Thematic information was analyzed with demographic variables to search for patterns & meaningful associations, adding to the context of understanding. A chart was constructed to indicate demographic variables by participant number.

Findings were compared to the literature & to theory.

Inter-rater coding was again initiated to assure accuracy of the coding process, focused codes, demographic charting, phrases, & emerging themes.
Findings

Overarching Theme:
Maternal-Fetal (M-F) Attachment

• **Theme 1** – Adherence is Motivated by Perception of Individual Need

• **Theme 2** – Adherence is Motivated by Assurance or Reassurance of Maternal & Fetal Health

• **Theme 3** – Adherence is Motivated by the Perceived need for Provider/Office Interaction & Relationship

• **Theme 4** – Adherence is Motivated in Prenatal Care as a Self-Directed Behavior

• **Theme 5** – Adherence is Motivated by Fear or Concern of Outcomes
Comparisons to Literature & Theory: Overarching Theme

Overarching Theme: M-F Attachment

Theoretical (HBM) Framework: M-F Attachment

- Pregnancy and M-F attachment provide a signaling cue(s) to action to seek care
- Perceived risk and perceived susceptibility motivated care seeking behavior.

Research: M-F Attachment: Aligns with Findings and Impacts upon Risk Assessment

- Nonadherence without M-F attachment (Haddrill et al., 2014), or failure to
- recognize their own behavior in relation to health outcomes (Kornfield et al., 2014).

M-F Attachment: Varied, Influenced by Circumstances, Perceptions, and Abilities

- Support may facilitate increased ability for M-F attachment
- Patients with supportive structures are more likely to utilize services (Olds et al., 2014).
Comparisons to Literature & Theory: Theme 1

Individual Perception of Benefit and Need for Care

Theoretical (HBM) Framework: Risk and Susceptibility, Benefit(s) and Barrier(s)

• Pregnancy raises the need for care, providing benefit to meet individual needs
• Benefit of care weighed against the barriers
• Previous experience and expectation of care (and services)

Research: Aligns with Findings

• Patients appreciate care aimed at meeting individual needs (patient-centeredness) Aragon et al. (2013)
• Meeting patient needs through patient-centered care is empowering (Baldwin & Phillips, 2011), Patient centered care that meets individual needs impacts upon the utilization of services (Hamden-Mansour et al., 2014; Kumbani et al., 2013; Olds et al., 2014),
• Patient-centered care improves adherence rates (Tanner-Smith & Lipsey, 2012).
Theoretical (HBM) Framework: Behavior is Motivated

- Adherence was motivated by the reassurance of maternal/fetal health
- The benefit(s) of health reassurance outweighed the barrier(s) of/to nonadherence (or fear of avoidance)

Research: Differed in Comparison to Findings

- Multiparous women did not need care for reassurance (Heaman et al., 2014)
- Pregnant women at risk are less likely to appreciate the risk (Lee et al., 2012)
- Multiparous women are less likely to seek assurance (Okah & Cai, 2014).
- Multiparous women are less likely to engage in care due to avoidance and disbelief (Haddrill et al., 2014).

Rationale: Explanation of Differing Findings

- Previous research of nonadherence
- Participants of this study were adherent and had not experienced losses.
- Reassurance of health, independent of previous outcomes
- Previous poor outcomes may weaken the perceived benefit of care (HBM)
Comparisons to Literature & Theory: Theme 3

Theme Three: Provider Interaction

**Theoretical (HBM) Framework:** Provider interaction is crucial in health behavior

- Building upon a trusting relationship with patient-centered care and attention is a perceived maternal benefit of adherence
- The benefit(s) care must outweigh the barriers to seeking and accessing care
- Provider interaction facilitates opportunity to understand health risk and susceptibility

**Research: Varied in Comparison to Findings**

- Provider interaction increases patient satisfaction and adherence (Aragon et al., 2013; Baldwin & Phillips, 2011; Olds et al., 2014; Tanner-Smith & Lipsey, 2012) and engagement (Sword et al., 2012)
- Patients are less likely to seek care with provider dissatisfaction (Brighton et al., 2013)

**Rationale: Explanation of Differing Findings** (Ability to change may be a barrier)
Comparisons to Literature & Theory: Theme 4
Theme Four: Self-directed Behavior

Theoretical (HBM) Framework: Health promoting behavior is motivated

- The need for care is as a cue to action (with perceived risk of nonadherence)
- Benefit(s) of health seeking behaviors outweighed the barriers

Research: Aligns in Comparison to Findings

- Decision-making is influenced by perceived value of care (Lee et al., 2012)
- Support is effective in decision-making (Olds et al., 2014; Schaffer & Mbibi, 2014).
- Self-care behavior is related to addressing patient needs (Aragon et al., 2013)
- Previous pregnancy influences decision making behavior (Haddrill et al., 2014).

One Differing Finding: Self Care is Compromised in Pregnancy (Prathima, 2014)

- Population in that study did not focus upon adherent multiparous women.
Comparisons to Literature & Theory: Theme 5

Theme Five: Fear or Concern of Unknown Outcomes

Theoretical (HBM) Framework: Health promoting behavior is motivated

- Risk perception, susceptibility, and cues to action motivate positive behavior change when the perceived benefit(s) outweigh the perceived barrier
- Inability to identify and act upon potential problematic issues raised concern (motivator)

Research: Differs from Findings

- Maternal decision-making is influenced by spiritual threat (Dako-Gryeke et al., 2013)
- Powerlessness to control outcomes (Hamden-Mansour, 2014)
- Risk is not accurately perceived in pregnancy (Lee et al., 2012)
- Multiparous women engage in health compromising behavior (Okay & Cai, 2014)

Rationale for Differing Finding: Adherent participants in this study had support and education
Limitations

- Small Sample Size (10 participants)
- Homogeneity of the sampled population
  - All who met inclusion criteria over four months were Caucasian
  - All had self-reported adequate* financial, social, and transportation resources
  - All had some type of health insurance coverage at the time of the encounter
  - All had a history of adherence; none had a history of loss
- Comparison of the sample characteristics with county & national statistics
<table>
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<th>Indicator(s)</th>
<th>Sample</th>
<th>City</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Education</td>
<td>80%</td>
<td>82.9%</td>
<td>89.4%</td>
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<tr>
<td>Bachelor’s Degree</td>
<td>20%</td>
<td>14.1%</td>
<td>22.9%</td>
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<tr>
<td>Race reported “White Alone”</td>
<td>100%</td>
<td>77.1%</td>
<td>88.5%</td>
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<tr>
<td>Percentage living in poverty</td>
<td>100%</td>
<td>32.1%</td>
<td>18.2%</td>
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<td></td>
<td>Stated adequate resource</td>
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<td>Were Medicaid eligible</td>
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<tr>
<td>Married</td>
<td>40%</td>
<td>34.7%</td>
<td>70%</td>
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<tr>
<td>Employed (over age 16)</td>
<td>60%</td>
<td>35.8%</td>
<td>57.3%</td>
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## Comparison of Statistics & Outcomes

Source: NYSDOH, 2015

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<th>NYS</th>
<th>County</th>
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<td>Health Insurance</td>
<td>100%</td>
<td>82.1%</td>
<td>85.3%</td>
<td>89.2%</td>
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</tbody>
</table>

| Early Prenatal Care | Goal 90% | 69.0% | 73.2% | 82.8% |

| Low Birth Weight   | Goal 5%  | 8.2%  | 8.2%  | 8.9%  |

| Infant Mortality   | Goal 4.5%| 6.1%  | 5.1%  | 6.5%  |
Significance of Study

New Knowledge

• Established M-F attachment as a cue-to-action in early and continued prenatal care adherence

• The importance of providing individual patient-centered care that meets individual patients’ unique and changing needs (consider previous experience, expectation, and interpretation or meaning of new pregnancy)

• The importance of identifying motivating factors in prenatal care adherence, including reassurance of health and wellbeing, and providers’ role in patient satisfaction

• Need for change in policy regarding identification of M-F attachment, early provision of resources, time to speak to patients and to address their needs, the need to best meet individual maternal needs throughout pregnancy, and ways to build and strengthen M-F attachment to improve adherence
Implications for Practice

The HBM theory suggests behavior is motivated. Perceived benefit(s) must outweigh barrier(s)

- Providers need to interact with patients, and ensure learning needs are met (assess perceived risk)

- Healthcare providers are poised to appraise patient health, potentially reassure patient wellbeing

- Health care providers may identify lack of M-F attachment (a HBM theoretical cue to action) with verification of pregnancy.

- Healthcare professionals are able to identify barriers to care, including unmet financial, transportation, and social needs, and to make indicated referrals to facilitate and support M-F attachment
Implications for Education

Educational Opportunity for Practitioners & Patients:

HBM: Risk Perception and Identification of Needs is Related to Behavior

• Understand the importance of M-F attachment
• Providers need to identify patients who are most at risk.
• Assess the need for resources at the time of pregnancy confirmation
• Link patients with needed resource
• Provide education to patients that is meaningful on a consistent basis throughout the pregnancy
• Take time to educate patients in a variety of ways to suit their learning needs (assist them in understanding the need for and purpose of care)
• Structured learning opportunities & policies
• Consider the way in which educational opportunities are provided
Implications for the Executive Leader & Social Justice

HBM: Perception is a key motivator to implement health promoting behavior.

- Guide patients to act upon a cue-to action where benefit(s) outweigh barrier(s)
- Create a shared vision for healthy outcomes, focused upon the goal of adherent behavior
- Identify cultural, social, physical, psychological, and spiritual influences that influence perception
- Establish an algorithm to ensure that patient needs are being met with onset of pregnancy verification
- Enact policy change in governing organizations that shape healthcare environments, including provider reimbursement to encourage adherence
- Support M-F attachment, meet needs, ensure social justice in healthcare
- Shared effort of collaboration to empower patients to direct self-care behaviors
Conclusions and Recommendations

- Prenatal care is important: Change is indicated to improve maternal adherence
- Research indicates the importance of early and continued M-F attachment
- Maternal prenatal care adherence is motivated (individually defined)
- Practitioners need to identify M-F attachment at the onset of care (confirmation of pregnancy, and build/strengthen that bond)
- Practitioners need to ensure patients have adequate resource early and throughout the pregnancy by spending time to assess needs, educate, provide resources, reassure patients, facilitate self-directed behaviors
- Practitioners need to understand the importance of patient interaction
- Educational opportunities need to be available for patients with regard to prenatal care, but also to how they can access resources that they need
- Policy change, through leadership, is indicated to include early and continued assessment for patient identified needs and to link patients with resources
- Research is indicated to understand M-F attachment implications and in decision-making
Presentation References

Complete Reference List Available for Distribution
Questions