MOTHeRS' Project: Acceptability of a Medically Tailored Food Bag Treating Food Insecurity in High-Risk Pregnant Patients

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Summary Statement:
- Food insecurity (FIS) during pregnancy is related to poor diet quality and is associated with increased risk of pregnancy and fetal complications.
- Current interventions may be missing some women with FIS at critical points during pregnancy
- Data from FNS suggests less than 50% of all eligible women participate in the WIC program
- FIS is often cyclical, and women who may be food insecure at one point in their pregnancy may not identify as food insecure at another point

Objective:
To develop a medically tailored, nutritionally-complete emergency food bag with nutrition education handouts to address FIS identified in rural, high-risk pregnant women in the clinical setting

Use of Theory:
- Grounded in the socio-ecological model
- Addressing FIS to improve health outcomes in high-risk pregnant women requires a multi-layered approach and should include intervention at:
  - Individual (food behaviors, stigma, knowledge)
  - Community (screening, education, resources)
  - Societal levels (nutrition assistance programs)

Target Audience:
High-risk pregnant women who screen positive for FIS at any prenatal appointment in three counties in rural, Eastern NC selected to pilot The MOTHeRS’ Program

- Identified using the 2-Question Hunger Vital Sign Screener, validated for use in the clinical setting

SNEB Nutrition Educator Competencies: 2.2; 5.5; 8.1

Program Description:
The MOTHeRS’ Project is a pilot program, funded by the United Health Foundation
- To provide mental health and maternal-fetal services via telehealth to women with high-risk pregnancies in rural OB-GYN practices
- AND to address FIS, as rates in these counties (18-24%) exceed the state average (15%)

Development of an Emergency Food Bag
- Review of literature identified 9 under-consumed, essential nutrients
- USDA and NIH food lists used to compile lists of foods high in target nutrients
- Reviewed foods/nutrients provided in WIC Food Package V
- Interviewed local nutrition and health professionals to gather information on the characteristics, habits, and preferences of high-risk pregnant women
- Availability and affordability determined using an online local grocery store

Food Bag Characteristics:
- 31 shelf-stable food items, weighing ~26 lbs, and costing less than $70
- Contains foods that are good sources of identified target nutrients
- Appropriate regardless of trimester or comorbidities
- Available and acceptable to women in rural, eastern NC
- Complements WIC Food Package V
  - Meets target nutrient needs for 2 weeks on its own, & 4 weeks combined with WIC

Nutrient Analysis of MOTHeRS’ Food Bag

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>RDA</th>
<th>Bag Provision 1</th>
<th>Nutrient</th>
<th>RDA</th>
<th>Bag Provision 1</th>
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<td>Protein</td>
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<tr>
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<tr>
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<td>Iron</td>
<td>15 mg</td>
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<tr>
<td>Calcium</td>
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<td>300 mg</td>
<td>30%</td>
<td>Calcium</td>
<td>1000 mg</td>
</tr>
<tr>
<td>Choline</td>
<td>550 mcg</td>
<td>150 mcg</td>
<td>27%</td>
<td>Choline</td>
<td>550 mcg</td>
</tr>
<tr>
<td>DHA</td>
<td>100 mcg</td>
<td>100 mcg</td>
<td>100%</td>
<td>DHA</td>
<td>100 mcg</td>
</tr>
</tbody>
</table>

Development of Educational Materials
- 3 complementary handouts (English and Spanish), evaluated by 18 professionals with expertise serving rural, underserved pregnant women and/or FIS, developed to:
  - Provide a guide for healthy eating during pregnancy, tips on food safety, and recipes to utilize food bag items

Implementation
- Clinic office staff trained to receive and distribute emergency food bags, screen for FIS, and counsel recipients using MOTHeRS’ Project handouts
- Emergency food bag, education, and community resource list provided each time a patient screens positive for FIS

Evaluation Methods:
- Process evaluation
  - Semi-structured, audio-recorded telephone interviews using validated content - transcribed verbatim
  - Deductive content analysis to identify themes
  - Independent review of transcripts by the research team (n=4) using codebook, to develop consensus of themes

Results:
Preliminary themes suggest acceptance, high satisfaction, utilization of the emergency food bag and limited access to other food resources

Conclusion:
Our findings align with previous studies demonstrating that medically-tailored food resources provided in the clinical setting are acceptable and potentially associated with reduced social stigma