Coming Full Circle:
Addressing Perceptions and Cultural Beliefs of Maternal Dietary Practices, Weight Gain during Pregnancy and Postpartum Family Planning in Egypt

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79% of Egyptian women are overweight and obese. Egypt also faces “the double burden of malnutrition” of stunting and overweight in children younger than 5 years.

Black et al, Lancet, 2013, Ng et al., 2014
Maternal diet plays a role in prevention of chronic malnutrition/stunting in children

**Short term:** Decreased mortality, morbidity, health expenditures, improved cognitive development

**Long term:** Decreased obesity and illnesses, increased school performance, learning capacity, work productivity, GDP

Adequate growth and development: attainment of height potential and adequate weight

- Household and family factors - maternal diet, care practices
- Early initiation and exclusive breastfeeding
- Adequate complementary feeding
- Prevention of infection

Community and Societal factors - Access to food and water, beliefs and norms, agriculture and food systems

Adapted from Stewart, 2013
Alarming increase in overweight, obesity and non-communicable diseases (NCDs)

- Several factors may contribute:
  - Tendency to focus on treatment rather than prevention
  - Shift from traditional to unhealthy diets with high fat, salt, and sugar
  - Less physical activity
  - Subsidies of wheat flour, sugar and oil thought to play a role

- Examining cultural factors and beliefs can aid in understanding motivations behind women’s food choices

Objective of operations research

- To examine women’s perceptions and cultural beliefs on:
  - Maternal diet during pregnancy and following birth, among breastfeeding and non-breastfeeding women
  - Weight gain during pregnancy
  - Birth spacing, and family planning within the first 2 years following birth
- Within the context of larger operations research study on stunting and infant and young child feeding practices
Methods

- Pregnant, lactating, and non-lactating mothers were purposively sampled from MCHIP’s SMART project in Lower and Upper Egypt (N= 40 in each group)

- 120 semi-structured in-depth interviews were conducted in Arabic, audio-recorded, transcribed, then translated into English.

- Dominant themes were identified and a coding scheme was developed.

- Qualitative analyses were carried out using NVIVO 10.0.
Study Sites: MCHIP Project Sites in Lower and Upper Egypt

Qaliobia, Lower Egypt

Sohag, Upper Egypt
Key Findings of In-Depth Interviews: Pregnant and Postpartum Women
Mothers had knowledge of healthy foods during pregnancy yet often restricted intake
Perceived harms of taboo foods are often misunderstood

- “Good and beneficial” foods are animal source foods, lentils, and fruits to “strengthen child’s body”
- Yet intake is restricted due to personal preferences, affordability and limited income
- Taboo or “bad” foods for pregnancy
  - Junk foods “causes cancer in blood” “miscarriage”
  - Salty foods “may cause allergy” or “malformation” to the child
  - Acidic/spicy foods “causes colic” “causes hemorrhoids”
  - Macaroni/bread/rice “bloating for mother”, “causes weight gain”
  - Caffeinated beverages “stimulant”, “destroy iron, cause anemia”
Junk Food:
A Taboo Food that is Not Always Restricted

“Some foods the pregnant woman should not eat are all the dark sodas, light colors [sodas] are okay.”
- Pregnant Woman, 6 months, Lower Egypt

“Foods which contain preservatives are bad, [for] example potato chips, cheese and luncheon meat. These have no benefit for the pregnant woman. My mother told me that. I have to drink soda daily. I also drink juices that I buy from the store..two to three times a week.”
- Pregnant Woman, 4 Months, Lower Egypt
Foods viewed as “Favored” and “Appropriate” – Important in Driving Women’s Food Choices

“Things I like to eat are creamy, spicy and salty food. The salty food causes deformation of the child and gives the pregnant woman allergies .... I think sodas and lemon are not good for pregnant women. But I like these things and eat them. I have beans and tamaiya [falafel – patties made of fava beans] for breakfast with pickles and salty cheese.”

- Pregnant Woman, 3 Months, Lower Egypt
Women Lack Knowledge of Optimal Weight Gain During Pregnancy and are Not Counseled by Health Providers

“A pregnant woman gains extra weight because extra weight is being formed around her, the baby. She will gain weight because the baby is gaining weight... it has nothing to do with her health or her nutrition, so there is no reason to keep the pregnant woman from gaining weight.”

- Pregnant Woman, 4 Months, Lower Egypt
Breastfeeding mothers associate nutritious foods with increased quality and quantity of breast milk. They eat more during lactation, including:

- Milk, radishes, leafy greens, legumes and animal source foods
- *Halawa* – traditional sweet made of sesame paste, butter, sugar
Mothers Restricted Consumption of Foods Considered “Taboo” Thought to Decrease Breastmilk Production and Harm the Mother and Child

“What is bad for lactating women are potato chips, soda, and fast food. Sodas affect the bones, chips is not nutritive and fast food is greasy. All this is transmitted through the milk to the child and harms the child in the same way.”

- Lactating Mother, Lower Egypt
“I like potato chips very much but my husband prevented me from eating it during my pregnancy to protect me and the baby from the preservatives that can affect our health, but now after giving birth.... I feel free to eat anything, even chips.”

- Non-lactating Mother, Lower Egypt

“She [non-lactating woman] must eat food rich with iron and calcium, like vegetables to provide her with good nutrition and to be able to become pregnant again in good health...[she] can eat any kinds of food and there is no bad food for her.”

- Non-lactating Mother, Upper Egypt
Non-lactating Mothers Felt Free to Indulge in Junk Foods

In contrast to pregnancy and lactation, non-lactating mothers state:

- “Nobody can tell me what to eat”
- Can indulge in desired foods, even “junk” foods

Mothers tended to stop breastfeeding after the first year

- Children are “grown up” and “old enough to eat”
- Early weaning supported and encouraged by grandmothers and other family members
- Mothers become pregnant
Mothers do not understand how breastfeeding can be used for family planning - the Lactational Amenorrhea Method (LAM). Mothers did stress the importance of birth spacing for two years.

- Views on becoming pregnant while breastfeeding
  - “LAM and breastfeeding is the same thing”
  - “Natural lactation is when a woman gets her period, and if she doesn’t use a family planning method, she conceives”
  - Breastfeeding without a menstrual period or “clean lactation” - this way a mother doesn’t [get pregnant]
  - “I have been lactating and not gotten pregnant...my aunt and mother got pregnant while lactating, this is from God.”
- Don’t understand the 3 criteria for LAM (exclusive breastfeeding, child < 6 months, no menses)
Recommendations

- Counsel mothers on incorporating a wide variety of foods for a healthy pregnancy, optimal fetal growth, and adequate weight gain during pregnancy.

- Carrying too much weight during pregnancy may have adverse effects on the fetus, setting the stage for increased risk for obesity over the child’s lifetime.

- Counseling on maternal diet also serves as an opportunity to address feeding these same nutritious and diverse foods to infants and young children, who also consume junk foods.
Recommendations

- Junk foods should be limited not only for mothers and children, but for all family members.

- Community-level strategies should prioritize educational messages to mothers and their families on reducing or eliminating intake of nutrient poor foods.

- Exclusive breastfeeding can be reinforced by teaching mothers about LAM, an effective family planning method for the initial 6 months postpartum, which benefits both mother and child.
Thank You!

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