



Pregnancy in the Context of Incarceration: The William & Mary Healthy Beginnings Project

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Background Research & Hypotheses

Pregnant women are a fast growing population in prisons and jails (Hotelling, 2008). These women are at high risk for poor birth outcomes (e.g., preterm and low birth weight). Evidence suggests depression and malnourishment may lead to birth defects (Hutchinson et al., 2008; Hotelling, 2008).

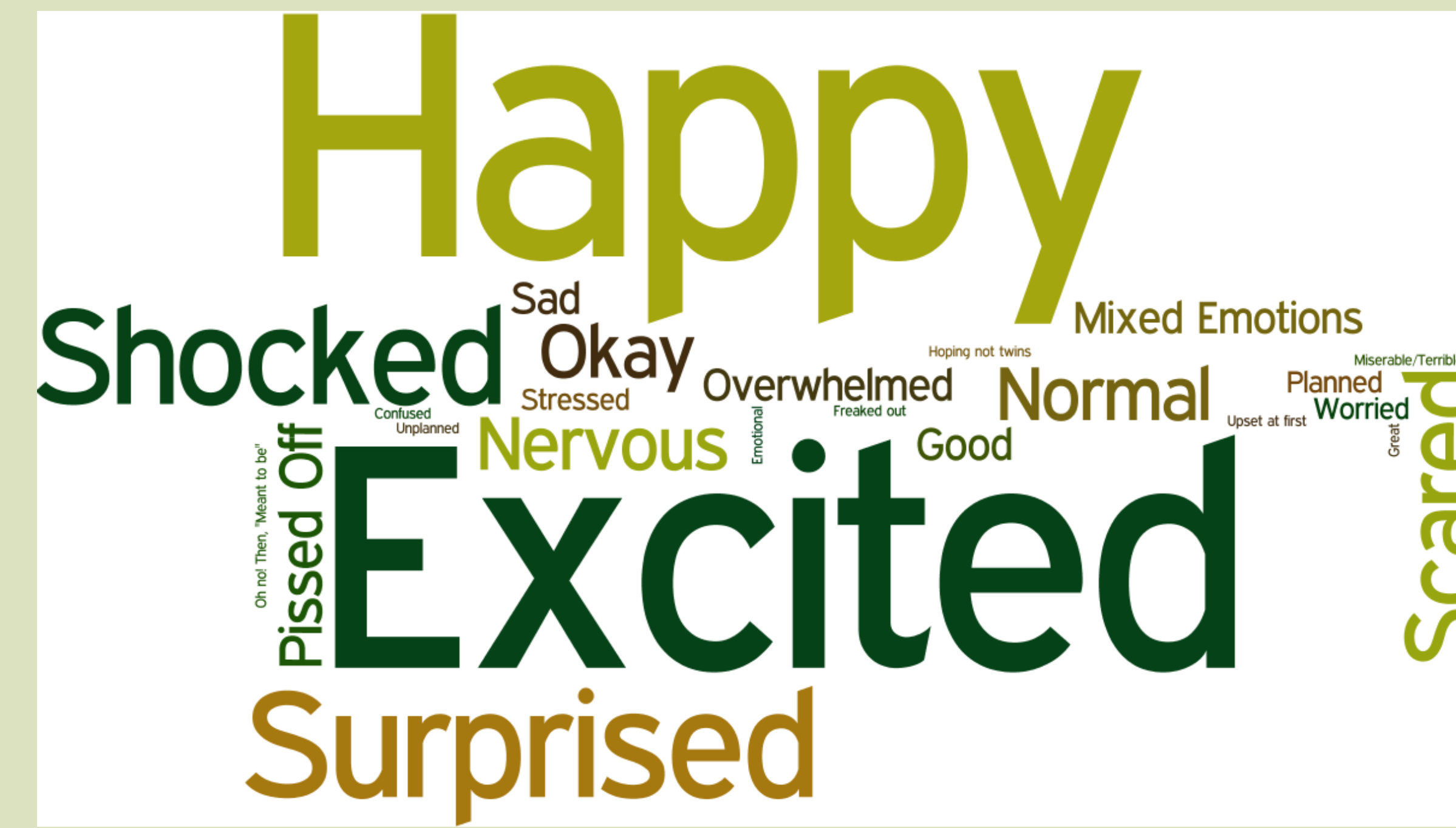
Hypothesis 1: The nutrition knowledge of pregnant inmates will increase after participating in our intervention.

Hypothesis 2: Incarcerated pregnant women will show decreases in depression after participating in our intervention.

Hypothesis 3: Participation in our program will be associated positive birth outcomes, including healthy birth weights, full term pregnancies and vaginal deliveries.

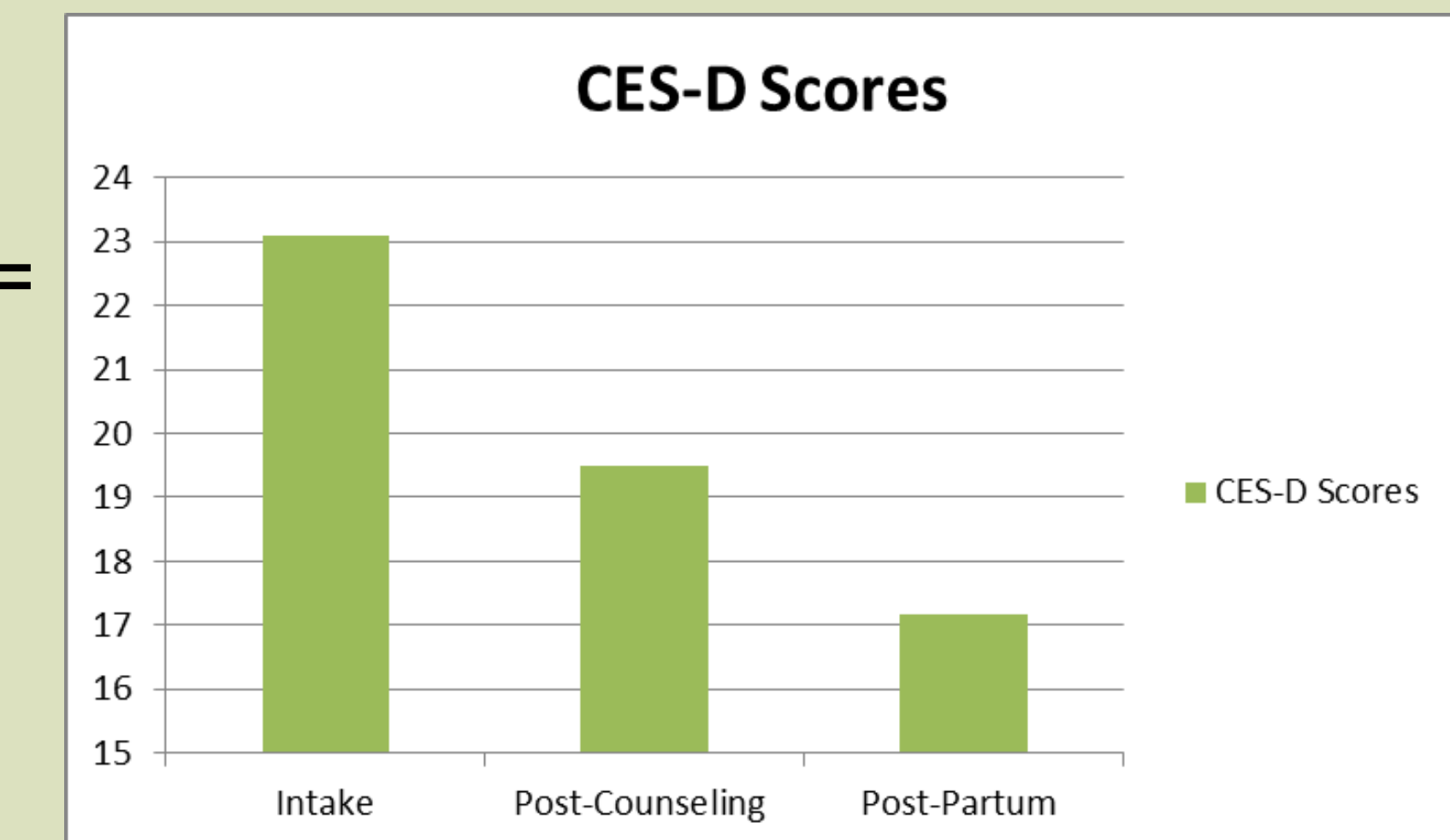
How do incarcerated women feel when they find out they are pregnant?

- 28% of women found that they were pregnant while incarcerated.
- When asked to describe how they felt when they found out they were pregnant, most report feeling positive emotions (see right).



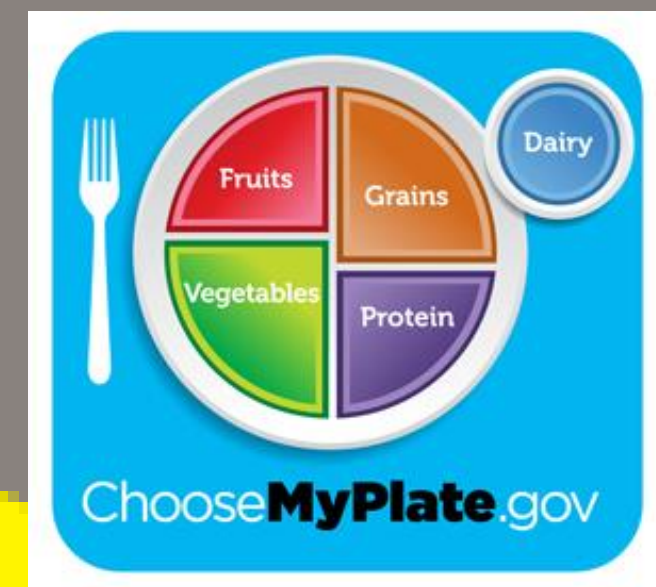
Hypothesis #2: Decreases in Depression

- As predicted, participants showed marked declines in self-reported depression from intake to post-counseling, paired sample *t*-test (55) = 1.92, *p* = .06, and from intake to post-partum, *t* (15) = 1.77, *p* = .09.



The W&M HB Intervention: Nutritional Counseling

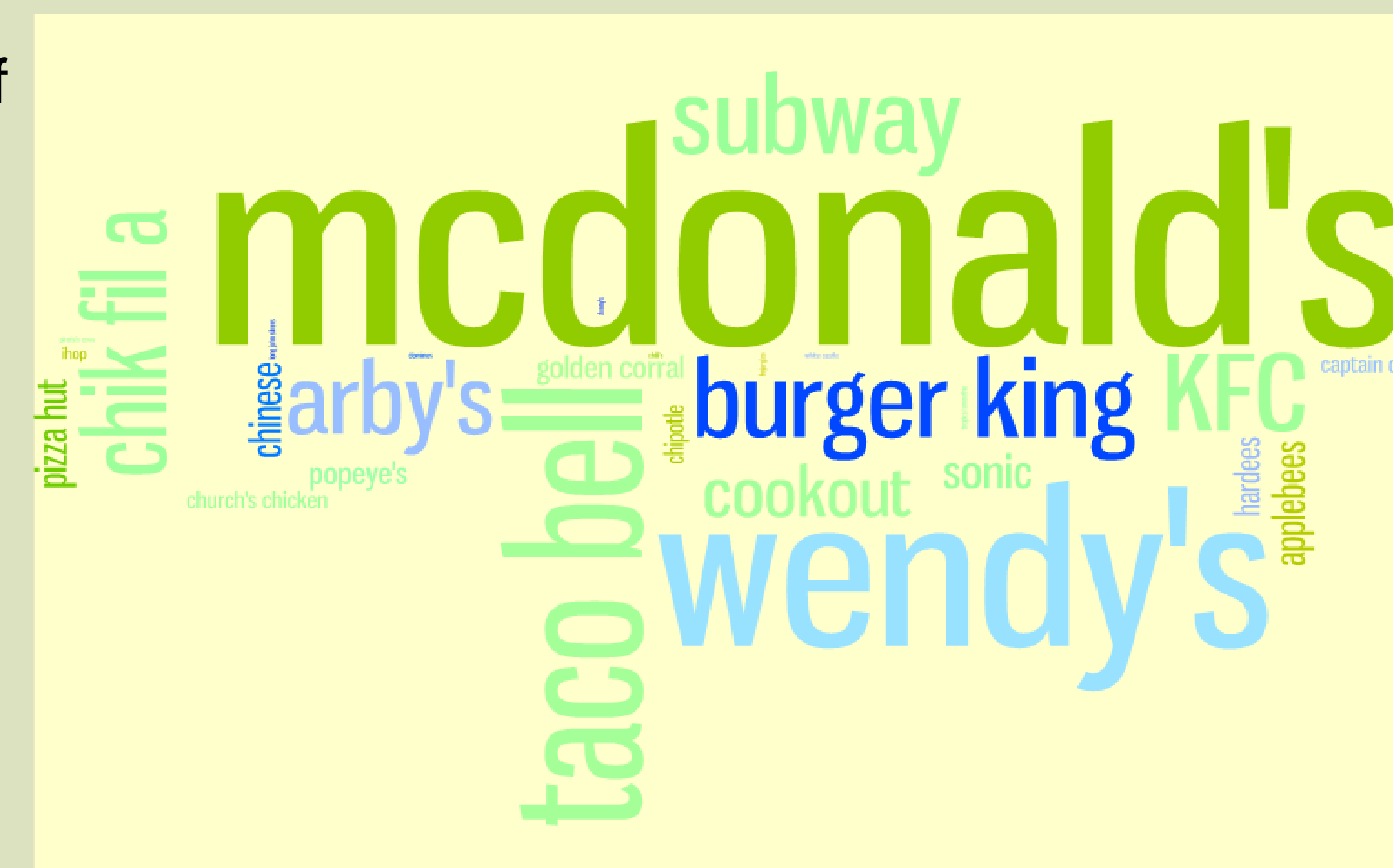
- Used as an intervention to encourage wiser decisions regarding diet during pregnancy and throughout life.



- To gain ownership of the program, women list their own goals.
- Women complete activities including creating their own plate of ideal food for dinner.
- Women receive a nutrition guide to fostering healthier eating patterns.

Where do pregnant incarcerated women like to eat (when not incarcerated)?

- Using participants reports of pre-pregnancy weight and height we calculated BMI.
 - 27% were overweight
 - 28% were obese
- When asked where they like to eat when they eat out, participants named mostly unhealthy locations like McDonald’s (see right).



Hypothesis #3: Improved Birth Outcomes

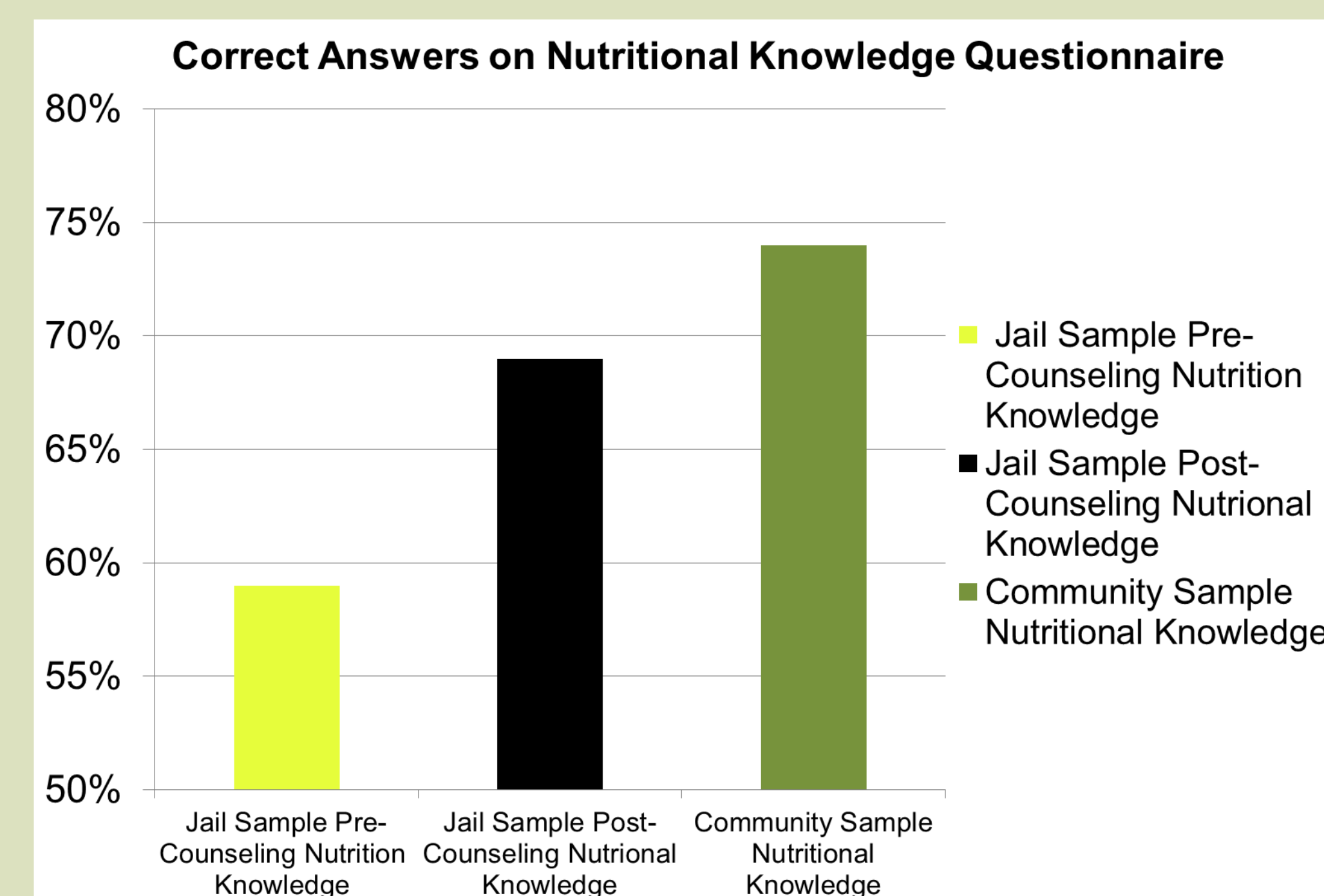
- Rates of low birth weight and prematurity among participants’ previous children were relatively high with 14% (9/63) indicating a previous baby was born weighing less than 5 lb 8 oz and 28% (15/63) indicating a baby was born before 37 weeks gestation (premature).
- To date, only 3 of 40 (7.5%) babies have been born early or of low birth weight – rates significantly less than participants previous pregnancies.
- Most participants (72%) reported vaginal deliveries with only 3 participants reporting having a planned C-section.

Participants and Measures

- Participants have included 89 women identified as pregnant at local correctional facilities.
- Mean Age: 25.7 years, ranging from age 19-41
- 53.9% African American.
- 42.7% carried no health insurance over the past 12 months.
- 40 have delivered their baby and provided data on the baby’s birth weight and complications.
- Participants provided data on nutritional knowledge using a 20-item amended version of Parmenter & Wardle’s Nutrition Knowledge Questionnaire (1999).
- Participants rated their level of depression using the Center for Epidemiological Studies – Depression Scale (CES-D; Radloff, 1977)

Hypothesis #1: HB Project Participation and Increases in Knowledge

- Participants made significant gains in nutrition knowledge from pre to post test. At pretest they answered 59% of questions correctly, at posttest this increased to 69%. A paired sample *t*-test showed this to be a significant improvement, *t* (57) = 6.99, *p* < .001.
- In comparison to participants from the W&M community, HB participants scored significantly lower than the comparison sample at pre-test, however post-test scores did not differ significantly from the community sample.



Implications & Future Research Directions

- This research highlights the need for nutrition and health education for incarcerated pregnant women.
- This research supports policy reform to further support these women (e.g., mental health counseling while incarcerated and connecting women to community resources to assist when released).
- Future directions include looking at long term effects of the intervention on the child’s cognitive and physical development.

References

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Acknowledgements

Thank you to our funder, W. K. Kellogg Foundation, to the Healthy Beginnings Team, Brittany Stroud, RN, Kirsten MacDonnell, Caroline Kelsey, and to our community partner agencies and correctional facilities, to our participants and their families