



Perspectives and Recommendations from American Indian and Alaska Native Adolescent Girls for a Community-Based Gestational Diabetes Prevention and Reproductive Health Counseling and Education Program



Kelly Moore,¹ Sarah Stotz,¹ Kristen J. Nadeau,² Martha Ann Terry,³ and Denise Charron-Prochownik⁴ for the Stopping-GDM Study Group

¹Centers for American Indian and Alaska Native Health, Colorado School of Public Health, Aurora, CO

²Pediatrics, University of Colorado, Aurora, CO

³Behavioral & Community Health Sciences, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA

⁴Health Promotion and Development, School of Nursing, Graduate School of Public Health, University of Pittsburgh, Pittsburgh PA



University of Colorado **Anschutz Medical Campus**

PRESENTER DISCLOSURE

Kelly R. Moore

Disclosed no conflict of interest





SGDM Background

Stopping Gestational Diabetes
in Daughters + Mothers

- American Indian and Alaska Native (AI/AN) women are disproportionately affected by adolescent obesity, adolescent pregnancy, and gestational diabetes mellitus (GDM); all with nearly twice the U.S. prevalence.^{1,2}
- GDM in turn increases the risk of obesity and diabetes in the offspring, creating a vicious cycle.
- Thus, the need for early interventions to prevent GDM in AI/AN girls and young women is compelling.

1. Beckles, G & Thompson-Reid, P. Diabetes & Women's Health Across the Life Stages: A Public Health Perspective, p 73, 2001

2. ADA. Proceedings of the Fifth International Workshop-Conference on GDM. Diabetes Care, 2007. 30(Suppl. 2)





SGDM Background

Stopping Gestational Diabetes
in Daughters + Mothers

- **READY-Girls** is a validated preconception counseling (PC) program for teens with diabetes to raise awareness about diabetes and pregnancy, and prevent unplanned pregnancies and pregnancy complications.





Purpose

- The purpose of the qualitative phase of this project is to inform the cultural tailoring of the existing READY-Girls diabetes and reproductive health (RH) education program for adolescent AI/AN females using the perspectives and recommendations of AI/AN females at risk of GDM.





Methods

■ Design and Procedures

- » Five semi-structured inter-tribal focus group (FG) interviews were conducted.
- » A trained facilitator moderated the FGs assisted by a note-taker.
- » An interview guide was developed with questions pertaining to the overall program, the educational booklet, and the educational video.
- » The moderator showed video clips and booklet excerpts from the existing program to elicit feedback.
- » Participants also wrote comments on pages copied from the booklet.





Sample

- Recruited from schools, clinics, community centers
- Girls aged 12-20 years
 - » Tribal members
 - » Overweight or obese (BMI $\geq 85^{\text{th}}$ percentile)
 - » Mother or other adult female caregiver willing to participate in adult women's FG
 - » Exclusions: type 2 diabetes, non-English speaking
- 13 AI/AN adolescent females (age 15.5 ± 1.8 years) in Colorado and Oregon





SGDM

Stopping Gestational Diabetes
in Daughters + Mothers

Data Management and Analysis

- Interviews were recorded and transcribed verbatim.
- The transcriptions were analyzed by a qualitative methods expert using inductive coding and the constant comparison method to identify prominent themes.
- Three researchers also analyzed marked-up booklets using content analysis to construct major themes.





SGDM

Stopping Gestational Diabetes
in Daughters + Mothers

You do not have to put your names on these pages but
you are welcome to write on them.

*I think it
should be
goals not
promises.*

Here are three promises to make to yourself:

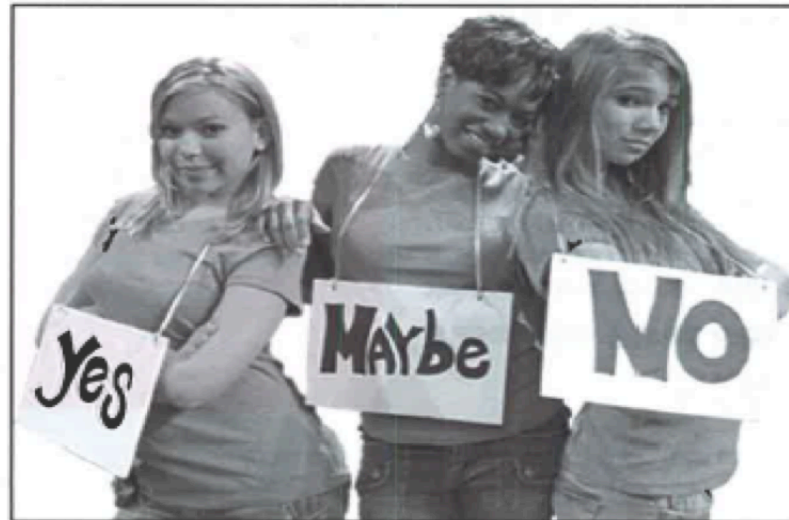
*often
when
promises
aren't kept
more feeling
of failure
arises.*

- 3 I'll get preconception counseling. ☆
- 3 When I decide to plan a pregnancy, I will get help from my health care team to keep my weight and blood sugars normal. ☆
- 3 I will only get pregnant if my healthcare team feels that I am healthy enough to do so. ☆

define

*Remembering
more
concerns.*

*when told
"NO" you
usually
want to
do it.*





SGDM Results: Major Themes

Stopping Gestational Diabetes
in Daughters + Mothers

■ Healthy pregnancy:

- » Girls understood health during pregnancy

“By eating lots of fruits and vegetables, and cutting out bad things from your diet, like junk food and coffee, and not smoking, using drugs, alcohol, and lots of exercise, and sleep.”

- » But knew little about GDM, preconception counseling, or the relationship between pre-pregnancy weight and GDM

“I know it’s a specific kind of diabetes that you get when you’re pregnant, and I haven’t honestly learned too much about it.”



Results: Major Themes

■ Need for RH resources:

- » Girls relied on Internet, mothers, cousins, and aunts for reproductive health information as school-based 'sex ed' primarily focuses on STD prevention.

“...there’s a lot of people not knowing what to do during pregnancies, or with their diabetes... access [to the information] is not there. And so they just go without, or try to ask other people or stuff like that, but they don’t always get accurate answers...”

- » GDM education from ‘relatable’ AI/AN women/older teens who understood AI/AN culture was preferred.

“Real stories’ from ‘people I can relate to”

“‘Hook’ to understand personal relevancy of GDM prevention”





SGDM

Stopping Gestational Diabetes
in Daughters + Mothers

Results: Major Themes

■ Empowerment and safety:

» Empowering girls to make healthy choices and building self-esteem are important.

“...like a sex ed and a health class, and in the health class, they teach good coping skills, like self-empowerment.”

“And I think that’s really important.”

» Domestic violence and peer pressure were raised as reproductive health safety concerns.

“...I think people are having sex more so out of peer pressure... So much is how you fit in...more people are getting pregnant because they don’t really know what safe sex is, or they’re not really using protection.”



Discussion

- Participants lacked awareness of GDM and their risk
- Recommendations for RH/GDM risk reduction education program:
 - » AI/AN women/older teens who understood AI/AN culture
 - » Real stories from AI/AN women who had GDM
 - » Internet-based program





SGDM

Stopping Gestational Diabetes
in Daughters + Mothers

Conclusions

- These findings have been used in conjunction with FGs of: AI/AN mothers/caregivers, AI/AN women with a personal history of GDM or diabetes, clinicians caring for adolescent AI/AN females, and experts on GDM and adolescent women's health to inform the development of a culturally-tailored GDM prevention program for young AI/AN women.



DAUGHTERS AND MOTHERS

STOPPING

GESTATIONAL DIABETES MELLITUS



BALANCING BODY, MIND, AND SPIRIT

Authors: Denise Charron-Prochownik, Kelly Moore, Sarah Stotz for Stopping-GDM Study Group



Screen shot example from the video



acknowledgements

Denver

Sheronnabah Harvey
Deb Hunt
Adrienne Maddux

Portland

Native Wellness Institute

Portland State University

Kelly Gonzales
Devon Harris

University of Colorado

Kelly Moore
Kristen Nadeau
Sarah Stotz
Yesenia Garcia-Reyes

University of Pittsburgh

Denise Charron-Prochownik
Martha Terry
Howard Stein

The Stopping-GDM Study

Group includes: A. Akers, A. Brega, L. Chalmers, D. Charron-Prochownik, J. Howe, G. Marshall, K. McNealy, K. Moore, K. Nadeau, N. O'Banion, J. Powell, E. Seely, S. Sereika, H. Stein, S. Stotz, M. Terry, S. Thorkelson, and X. Uribe-Rios

Funding Source:

NIH 1R01NR014831-01A1,
Co-PIs Charron-Prochownik
and Moore

We wish to thank the Native American Youth and Family Center (NAYA), Denver Indian Family Resource Center, Denver Indian Health and Family Services, Sarah Roman, and our participants.



Stopping GDM Overview

■ Phases

» Phase 1: Qualitative

- FGs & key informant interviews
- Feasibility pilot at Denver Indian Family & Health Services with 10 mother/daughter dyads

» Phase 2: Quantitative

- RCT in 5 settings
 - » Reservation Based
 - » Urban
 - » University Clinic

» Phase 3

- Dissemination I/T/U wide



Stopping GDM RCT

- Delivered by trained project nurse
- Online education sessions for each mother and daughter
 - » Video at baseline
 - » View ebooklet at 3 months and 6 months
 - » March of Dimes pamphlets (Control group sees only MOD materials at initial visits but all receive copy of booklet and video at final 15 month f/u visit)
- Online pre- and post-test survey
- Cultural Toolbox
 - » Tribal customs and concepts of reproductive health, “Coming of Age” ceremonies, local traditions
 - » Community resources
 - » Other resources from internet and sources outside the local community

