Modifying a Preconception Counseling Program to Prevent Unplanned Pregnancies in Minority Teens with Diabetes: READY-Girls

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Presenters Disclosure

Denise Charron-Prochownik

Disclosed no conflict of interest
Presenters Disclosure

Denise Charron-Prochownik

Disclosed never used a Health Literacy Screening Tool.
Background

- Diabetes can cause reproductive complications

- **Up to 9%** of diabetic women with unplanned pregnancies have complications (e.g., infants with congenital abnormalities).

- **Up to 2/3** of diabetic women have unplanned pregnancies.
Background

For teens with diabetes,

it’s more than preventing an unplanned pregnancy...

it’s knowing how to plan a pregnancy when it’s safe and wanted.
Background

- Reproductive complications can be reduced from 9% to 2% through Preconception Counseling (PC)

- ADA recommends PC for all women of child-bearing potential to prevent unplanned pregnancies...
Background

Adolescent girls are unaware of PC and reproductive complications, early and some unsafe practices, and are at high risk for an unplanned pregnancy.

- 39% of teenage girls with diabetes had an episode of unprotected sex.
- Average age of sexual debut was 15.6 years (range 13 – 19 years).
What age do we target?

Young adolescents, starting at puberty (~13 yrs. old), need developmentally appropriate information with a sensitive/proactive/preventative approach before becoming sexually active to empower them to make informed choices regarding reproductive health.
Sweetie, I think you’re misinterpreting the meaning of the term “play date.”
Prior to sexual activity, during routine clinic visits, health care professionals should introduce all women with diabetes to the “Awareness” Phase of Preconception Counseling.
3 Phases of Preconception Care (PC)

- **Phase 1: “Awareness Counseling”** (anyone, anytime “not ready”)
- **Phase 2: “Overview” PC** (> 6 months “getting ready”)
- **Phase 3: “In-Depth” PC** (< 6 months “being ready”)

*READY-Girls is Phase 1*
What Is Given In “Awareness Counseling”

• Information about:
  – Importance of tight control before conception
  – Diabetes and pregnancy / risk of complications
  – Importance of planning a pregnancy with PC
  – How to prevent an unplanned pregnancy
  – Family planning advice
Significant Association of PC Awareness with Seeking PC

Survey 16-21 yr. old:
Motivational Cue:

**Initial awareness of PC**  \( r = .27 \ (p < .05) \)

(Charron-Prochownik, 01)

Survey pregnant women with diabetes:
Motivational Cue:

**HCP encouraged PC**  \( OR = 3.13 \ (p = .02) \)

(Janz, 95)
“READY-Girls” is Reproductive-health Education and Awareness of Diabetes in Youth for Girls

READY-Girls is a theory- and evidence-based Preconception Counseling program developed as a DVD and book that targets teens with diabetes

STAR decision model
(MEICHENBAUM, 1983)

Expanded Health Belief Model
(STRECHER & ROSENSTOCK, 1997)
Theoretical/Decision-making Models for READY-Girls

EXPANDED HEALTH BELIEF MODEL
(STRECKER & ROSENSTOCK, 1997)

STAR model
S = Stop
T = Think about your choices
A = Act on your decision
R = Reflect on results of your choice
(MEICHENBAUM, 1983)
APPLICATION OF THE EXPANDED HEALTH BELIEF MODEL (STRECHER & ROSENSTOCK, 1997)

Variables not amendable to change from intervention.
Attitudes/Beliefs are italicized.
Findings

Following READY-Girls IG teens were more likely to:

- Be more knowledgeable about DM and pregnancy, sexuality, PC
- Perceived more support
- Perceived greater benefit and fewer barriers to PC
- Be more consistent in their use of effective birth control
- Be more likely to seek PC and initiate discussion HCP
- Have lower A1Cs
- Boosters appeared to be an important component of the intervention.
Findings

In our 15 year follow-up study, compared to women who “ever received PC”, women who “first received PC during adolescence” had greater Family Planning Vigilance:

- Older sexual debut (yrs.) 18.5 vs. 15.4
- More used Combination BC Method
- More discussed PC with HCP
“READY-Girls” an inexpensive self-administered Preconception Counseling program for teens with diabetes was placed online for greater dissemination.
Preconception Counseling for Adolescents Statement

Starting at puberty, prior to sexual activity, preconception counseling (PC) should be included in every routine diabetes clinic visit for all women of child-bearing potential. Developmentally-appropriate information should be given incrementally with regular reminders (boosters) throughout a woman’s fertile reproductive life cycle. To prevent unplanned pregnancies, raising PC awareness and initiating fundamental PC educational and counseling components are critical during early adolescence; thus empowering young women to make informed choices for themselves regarding their reproductive health and their future children. Communication with their support networks regarding these issues is imperative (e.g., mothers of the adolescent girls with diabetes). (Level of evidence A-B)

Fundamental PC (“Awareness Counseling”) educational and counseling components are:
- Effects of diabetes on reproductive health and pregnancy
- Effects of high blood sugar (BS) on fetal development and risks of complications
- Importance of BS control before conception and PC
- Importance of preplanning a pregnancy with PC to decrease the risks
- Importance of family planning and preventing an unplanned pregnancy

References


Background

- ADA recommends PC for all women of child-bearing potential to prevent unplanned pregnancies... beginning at puberty prior to sexual activity

READY-Girls provided the evidence-base for ADA
Reproductive health awareness
for teenage women with diabetes

what teens want to know about
sexuality, pregnancy, and diabetes
Denise Charron-Prochownik, PhD, RN, CPNP

Diabetes Care
Supplement 1
American Diabetes Association
Clinical Practice
Recommendations 2009

B. Preconception care

Recommendations
• A1C levels should be as close to normal as
possible (<7%) in an individual patient
before conception is attempted. (B)
• Starting at puberty, preconception
 counseling should be incorporated in
the routine diabetes clinic visit for all
women of child-bearing potential. (C)
• Women with diabetes who are
contemplating pregnancy should be evaluated
and, if indicated, treated for diabetic
retinopathy, nephropathy, neuropathy,
and CVD. (E)
• Medications used by such women
should be evaluated before conception,
since drugs commonly used to treat
diabetes and its complications may be
contraindicated or not recommended
in pregnancy, including statins, ACE
inhibitors, ARBs, and most noninsulin
therapies. (E)
Modifying Strategies

- Book and DVD (video: words into dialogue)
- 5th grade reading level
- Pictures
- Animation
- Graphics
- Voice-over narration
- Short vignettes with teen actresses to act out concepts
- Text to highlight key points
- Mental Models  (targeted African American teens T2D)
  - Semi-structured qualitative interviews to explore understanding of and association between concepts…terms…words
    “Do you know what abstinence means?”
    “Do you know what conception means?” “Explain how it happens?”
Meet Nicole Johnson…

https://www.youtube.com/watch?v=waZe4xamQC4
The **READY-Girls** Message:

- Delayed Puberty
- Irregular periods

When a HbA1c is normal, it's safe to get pregnant.

How do Women Get Pregnant?
Pregnancy Defined

https://www.youtube.com/watch?feature=player_embedded&v=X6Hz0-40b9Y
to avoid a surprise, if you don’t want to get pregnant, you need to think about a family planning method before you have sex.

About 4 weeks after conception, the developing baby is just the size of a pea but already has a head with a brain forming; little bumps that will be arms, legs, and eyes; and a heart beating and pumping blood.

By about 8 weeks after conception, the developing baby is the size of a walnut. The eyes, ears, and nose have taken shape; the arms and legs are formed; the hands have fingers; and the feet have toes.

As you can see, the first two months of a pregnancy are very important! It is during this time that the basic organs and body parts are formed. High blood sugars can hurt the baby’s development. This is why establishing control of your diabetes is essential before you conceive.
The fertilized egg travels down the Fallopian tube into the uterus. When it gets out of the tube and clings to the wall of the uterus, then the woman has become pregnant. The egg then starts dividing many times to form new living cells. This can develop into an embryo and then into a fetus, which is a developing baby inside the woman’s uterus.

The importance of having tightly controlled blood sugars before you become pregnant is obvious when you consider how fast a fetus develops during the first few weeks after conception. The heart and brain may not form correctly if a woman’s blood sugars are high during this time.

How fast does an embryo develop?

Only 4 weeks after conception, what has already begun to develop?
1. Heart
2. Brain
3. Eyes
4. Arms
5. All of the above

All of the above!
The heart, the brain, the eyes, the arms and even legs have begun to develop!
In fact, a heart is beating and pumping blood.
APPLICATION OF THE EXPANDED HEALTH BELIEF MODEL (STRECHER & ROSENSTOCK, 1997)

*Variables not amendable to change from intervention. Attitudes/Beliefs are italicized.*

Figure 1
Recommendations?

- Easy to understand
- Simplify concepts
- Pictorial form?
- Brief simplistic text?
  - Bullets
  - Comic book format (characters with dialogue)
- Teach-back?
  - Interactive
  - Q & A?
Recommendations?

- Pre-screen using a health literacy screening tool?

- Remediation education track?

- Strategies to enhance acquisition and retention of knowledge?
READY-Girls!

You're growing up! Are you ready to handle the changes?
Since you have diabetes, you already know a lot more about your health than other girls your age. And now that you are a teenager, there are even more things that you need to know and do.
You need to know how diabetes can affect your changing body...your period...and even having sex and having a baby. It sounds like a lot, but now is the time to start getting ready for your future.
Managing your diabetes and knowing what to expect will help you meet the challenge of being prepared for all of the changes as you move toward womanhood.

helpy girls: Are you getting READY?
Control what You Can:

1. Take your diabetes medication.
Medication, either as insulin (from shots or a pump) or as pills, helps blood sugar to go down. Insulin actually helps the sugar get out of your blood and into the cells where your body can use it as energy.

2. Eat Healthy Foods
After a meal or snack your blood sugar will go up. Some foods make your blood sugar go up more than others. Balance this with physical activity.

3. Physical Activity
Physical activity usually makes blood sugar go down. Sometimes if you exercise and take insulin, your blood sugar can go too low. But, if you are not in good control and you exercise hard, your blood sugar can actually go up!

Here’s how you can get ready:
- Check your blood sugar before and after you exercise
- Adjust your insulin if your blood sugars are too high or too low
- Have a snack as needed
- Keep something with sugar nearby
- Wear your medical ID bracelet

True or False?
I need to test my blood sugar before exercising.

true! Exercise can lower your blood sugar. That’s why you need to take control in checking it!
For many teens, it’s hard to talk about topics like sex and birth control with a health professional. Here are some common reasons why you might hesitate to “start the conversation”:

<table>
<thead>
<tr>
<th>If you feel like this...</th>
<th>Remember:</th>
</tr>
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<tbody>
<tr>
<td>“It’s embarrassing and some of my questions are hard to ask.”</td>
<td>• Members of your health care team are sensitive and should keep things confidential.</td>
</tr>
<tr>
<td>“I don’t want to talk about sex with the doctor that I’ve had since I was a little kid.”</td>
<td>• Ask your doctor or nurse if there are limits on confidentiality.</td>
</tr>
<tr>
<td>“I don’t even know where to start. These are hard questions.”</td>
<td>• Talk with the person who makes you feel the most comfortable.</td>
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<td></td>
<td>• You can talk to someone else on your healthcare team, like a nurse.</td>
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<td></td>
<td>• You might want to talk without your parents present. Explain to your parent that you need to talk about personal things with the nurse or doctor.</td>
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<td></td>
<td>• It’s always a good idea to practice beforehand. Sometimes it helps to jot down your questions. You might want to hand your nurse or doctor a note. Here are some ideas to get started:</td>
</tr>
<tr>
<td></td>
<td>• “Doctor (nurse), I have some questions that are pretty hard to ask.”</td>
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<tr>
<td></td>
<td>• “If I ask you some questions, can it just be between us?”</td>
</tr>
</tbody>
</table>
Building a Support Network for Teens

By providing PC knowledge and skills to:

- mothers and daughters to initiate dialogue and boost maternal support

- Health Care Professionals prepared to provide PC to teens.
This early self-instructional program could potentially empower these young women to make well-informed reproductive health choices for themselves and their future children.
How do you ask for counseling?

https://www.youtube.com/watch?feature=player_embedded&v=-Bt8hxrCHCE
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For On-Line CEU program with DVDs and readings

“Preconception Counseling for Adolescent and Adult Women with Diabetes” www.nursing.pitt.edu

For free READY-Girls book www.diabetes.org
READY-Girls!
Reproductive-health Education & Awareness of Diabetes in Youth for Girls

“This is more than ‘the talk’...
this is about how to take care of your changing body when you become a teenager...
a teenager with diabetes.”

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