Missed conceptions or misconceptions?

Perceived infertility among unmarried young adults in the US

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“Perceived infertility”: concept & significance

- An individual’s belief that he/she will be unable to get (someone) pregnant, regardless of medical reality

Perceived infertility
(at risk of unintended pregnancy)

Actual infertility
(not at risk of unintended pregnancy)

- How common?
- Correlates?
- Reasons for this perception?
- Associated with contraceptive use?

Note: Figure is a representation of a concept, not drawn to scale
Prior research on perceived infertility

- Previously studied among adolescent women (22% in Rainey 1993)
  - Common reason for contraceptive non-use when asked about retrospectively to pregnant adolescents (42% in White 2006) or women with unintended birth (49% in 2002 NSFG)

- Associated with lack of contraception (Rainey 1993, Raine 2003, Downs 2004), contraceptive discontinuation (Kinsella 2007), and STI acquisition (Downs 2004)

- No nationally representative studies of perceived infertility among young adults
Women’s infertility fears: actual posts on an online bulletin board

**How do I know Im infertile?**

Im only 16 and I have always had a gut feeling I am infertile. I want to make sure I am not infertile, but i think its going to be difficult as I haven’t had sex? I just keep having nightmares that im crying because im infertile and I just want to put my mind at ease. Is it worth going to the doctor and doing tests or not?

**Could this mean that I am INFERTILE?**

I'm 19. I had unprotected sex with my boyfriend the day before I started ovulating. (I know stupidstupidstupid) He just put it in a few times but didn't ejaculate. However, he did twice before that from oral sex. Anyway...I got my period. Why didn’t I get pregnant?

**I used to take morning after pills, i also too abortion pills once does it mean am infertile now?**

Have tried getting pregnant for the past two months but its not happening. I have a cycle of 21 days

3 years ago
Men’s infertility fears: actual posts on an online bulletin board

I am a male, is their any chance I am infertile, and if so what are the signs?

Hi it’s just something I’ve had on my mind...

1 year ago (Tiebreaker)

Additional Details
It’s not sticky :/ suppose that’s good, but is it natural if sometimes it’s a little thick?

Can you become infertile by masturbating a lot?

I’m a teen and i have masturbated for about 5 years. so can you become infertile if you masturbate a lot?

(im male) how do i know if i am infertile?

they say that continuous bashes to the nads, smoking, and loads of other things can cause infertility in men.
i used to do dirt biking, i still ride a crosser, i smoke on and off. i surf - yes they dissapear when its that cold!!
and have probably not looked after myself that well in general. so how would i go about finding out if im infertile, would be handy to know :P

friendly...
Fog Zone dataset

- Telephone survey of 1,800 unmarried men and women aged 18-29, weighted results are nationally representative

- Commissioned by the National Campaign to Prevent Teen and Unplanned Pregnancy, and collected by the Guttmacher Institute in 2009

- 1,697 respondents included. 103 excluded due to:
  - Current pregnancy (male or female, n=41)
  - Being sterilized (n=19)
  - Non-response to question about perceived infertility (n=43)
Conceptual framework

“Some people are unable to become pregnant, even if they want to. How likely do you think it is that you are infertile or will have difficulty getting (a woman) pregnant when you want to?”

- Socio-demographic characteristics
- Knowledge about fertility
- Sexual experience
- Contraceptive experience
- Pregnancy experience

Response levels
- Not at all likely to be infertile
- Slightly likely to be infertile
- Very likely to be infertile (“perceived infertility”)

Gender

Contraceptive use, consistency of use, or future use intentions
Perceived likelihood of infertility, by gender
Perceived infertility, by race and gender

- White: 11% (All), 14% (Women), 8% (Men)
- Black: 21% (All), 22% (Women), 21% (Men)
- Hispanic: 26% (All), 20% (Women), 23% (Men)
- Other: 24% (All), 23% (Women), 21% (Men)

Note: The Hispanic data point is circled, indicating a higher percentage of perceived infertility compared to other races and genders.
Reasons underlying perception, among women with perceived infertility

Among women responding 'Very likely' to be infertile; three reasons not mutually exclusive

- Doctor's statement: 41%
- Sex without BC, no pregnancy: 37%
- None of three reasons: 33%
- Infertile relative: 18%
Reasons underlying perception, among women with perceived infertility, by race/ethnicity

Among women responding 'Very likely' to be infertile; three reasons not mutually exclusive
Perceived chances of pregnancy after one act of unprotected sex among young adults

0-10% chance: 8%
11-24% chance: 4%
25-49% chance: 9%
50-74% chance: 39%
75-100% chance: 40%

Correct answer
Progressively worse answers
Young adults with perceived infertility are significantly more likely to...

- be Hispanic
- be on public assistance
- have never used contraception
- have (probably) had an abortion (marginally significant)
- be Hispanic or ‘other’ race
- be less educated
- have not had sex education
- be in a current sexual relationship
# Odds of reporting “very” vs. “slightly” likely to be infertile by contraceptive outcomes

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Restricted to</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to use contraception, past month</td>
<td>Sexually active, current relationship, not trying to conceive</td>
<td>n=255 adjOR: 1.57 p=0.37</td>
<td>n=220 adjOR: 0.85 p=0.75</td>
</tr>
<tr>
<td>Inconsistent condom use, past month</td>
<td>Used condoms in past month</td>
<td></td>
<td>n=195 adjOR: 1.89 p=0.20</td>
</tr>
<tr>
<td>Inconsistent oral contraceptive pill use, past month</td>
<td>Used OCPs in past month</td>
<td>n=160 adjOR: 1.70 p=0.44</td>
<td></td>
</tr>
<tr>
<td>Expects sex without birth control in next 3 months</td>
<td>Sexually active, not trying to conceive (regardless of relationship status)</td>
<td>n=328 adjOR: 1.63 p=0.30</td>
<td>n=315 adjOR: 2.64 p=0.04</td>
</tr>
</tbody>
</table>

Controlled for: race, education, sex education, receipt of welfare, and pregnancy experience in women.
Controlled for race, education, sex education, religion, and sexual relationship in men.
Percent expecting sex without birth control in next 3 months, by perceived infertility
Summary of main findings

• 19% of women and 13% of men aged 18-29 perceive themselves to be infertile

• Reasons for perceived infertility in women vary by race

• Associated with minority status, socioeconomic status, education, sexual education, sexual relationship

• Associated with lower intentions to use contraception
Main strengths and limitations

• Limitations
  – Did not measure actual infertility
  – No information on other potentially relevant factors
    • Tobacco, marijuana or other drug use, STI experience, sexual abuse, menstrual cycle regularity, hormonal method concerns
  – Self-reported, retrospective, cross-sectional data

• Strengths
  – Nationally representative of young adults in the US, first in men
  – Large sample size allowed for various stratified analyses and confounder control
Implications of main findings

• Raises questions for future research

• Should we reconsider messages like “it only takes one time to get pregnant”? 

• Opportunity to reinforce condom use for “triple protection” against pregnancy, STIs/HIV, and infertility?

• Perceived infertility in the developing world?
Thank you!

Acknowledgements

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  • Laurie Schwab Zabin

– Analytic and editorial guidance
  • Mark Emerson
  • Ron Gray

– Assistance with Fog Zone dataset
  • Larry Finer
  • Jennifer Frost

– Funding
  • National Campaign to Prevent Teen and Unplanned Pregnancy
Why compare “very vs. slightly” instead of “very vs. not”?

• Primary interest: understanding what elevated concern above what might be considered a “reasonable” level
  - “Slightly likely” might be considered most “reasonable” response
  - “Not likely” could indicate:
    • lack of familiarity with fertility issues (interest: what ups the ante?)
    • past pregnancy (very vs. slightly offers better comparison between nulligravid)

• Why not logistic regression with “not/slightly” vs. “very” likely?
  - Not and slightly were VERY different groups
  - Disadvantage in women clustered in extremes. In men, disadv. progressively increased concern.
### Correlates of perceived infertility (multivariate)

#### Females (weighted n=763)

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>NH White</td>
<td>1.00</td>
</tr>
<tr>
<td>NH Black</td>
<td>1.45</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3.44**</td>
</tr>
<tr>
<td>Other race</td>
<td>1.72</td>
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<table>
<thead>
<tr>
<th>Education</th>
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<tr>
<td>&lt;HS</td>
<td>1.00</td>
</tr>
<tr>
<td>HS/GED/voc/tech</td>
<td>1.66</td>
</tr>
<tr>
<td>Some college/AS</td>
<td>0.70</td>
</tr>
<tr>
<td>College or more</td>
<td>0.37</td>
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</table>

<table>
<thead>
<tr>
<th>Received sex ed</th>
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</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>1.06</td>
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<table>
<thead>
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<th>Public assist past yr</th>
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<tbody>
<tr>
<td>No</td>
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</tr>
<tr>
<td>Yes</td>
<td>3.00*</td>
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<thead>
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<th>Preg experience</th>
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<tbody>
<tr>
<td>Never pregnant</td>
<td>1.00</td>
</tr>
<tr>
<td>Everpreg, has kids</td>
<td>0.62</td>
</tr>
<tr>
<td>Everpreg, no kids</td>
<td>2.26</td>
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<table>
<thead>
<tr>
<th>Trying for pregnancy</th>
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<td>1.00</td>
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<tr>
<td>Yes</td>
<td>1.86</td>
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#### Males (weighted n=914)

<table>
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</tr>
<tr>
<td>NH Black</td>
<td>2.29</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.51*</td>
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<tr>
<td>Other race</td>
<td>6.08***</td>
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<td>Yes</td>
<td>0.44*</td>
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<table>
<thead>
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</tr>
<tr>
<td>Catholic</td>
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</tr>
<tr>
<td>Oth Christian</td>
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</tr>
<tr>
<td>Fund Christian</td>
<td>2.14</td>
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<tr>
<td>Oth/DK/refused</td>
<td>0.29</td>
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<table>
<thead>
<tr>
<th>Sexual relationship</th>
<th></th>
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<tbody>
<tr>
<td>Current</td>
<td>1.00</td>
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<tr>
<td>Previous</td>
<td>0.40*</td>
</tr>
<tr>
<td>Never had sex</td>
<td>0.35*</td>
</tr>
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Controlled for: race, education, sex education, receipt of welfare, pregnancy experience, and attempting to get pregnant in women. Controlled for race, education, sex education, religion, and sexual relationship in men.
Proportion who have not used contraception in the past month, by infertility perception

WOMEN
(very vs. slightly)
adjOR: 1.57, p=0.37, (n=255)
(very vs. not)
adjOR: 0.71, p=0.46, (n=432)

MEN
(very vs. slightly)
adjOR: 0.85, p=0.75 (n=220)
(very vs. not)
adjOR: 0.59, p=0.23, (n=437)

Note: restricted to sexually-active individuals in a current sexual relationship, but not trying to conceive

AdjORs controlled for race, education, sex education, receipt of welfare, and pregnancy experience in women.
AdjORs controlled for race, education, sex education, religion, and sexual relationship in men.
Association of perceived infertility and inconsistent contraceptive use

% male condom users with inconsistent use in last 3 months

Not likely | Slightly likely | Very likely
---|---|---
59 | 40 | 65

% female OCP users who skipped 1+ OCPs in last 3 months

Not likely | Slightly likely | Very likely
---|---|---
38 | 45 | 60

Inconsistent condom use
(very vs. slightly): adjOR 1.89, p=0.20 (n=195)
(very vs. not): adjOR 0.94, p=0.90 (n=392)

Inconsistent OCP use
(very vs. slightly): adjOR 1.70, p=0.44 (n=160)
(very vs. not): adjOR 2.46, p=0.24 (n=230)

Controlled for race, education, sex education, receipt of welfare, and pregnancy experience in women.
Controlled for race, education, sex education, religion, and sexual relationship in men.