Comparison of induced abortion, spontaneous abortion, and ectopic pregnancy gynecology patients in Ghana

Hilary Schwandt¹, Andreea Creanga¹, Kwabena Danso², Richard Adanu³, Tsiri Agbenyega², and Michelle Hindin¹

¹ Johns Hopkins School of Public Health
² Kwame Nkrumah University of Science and Technology and the Komfo Anokye Teaching Hospital
³ University of Ghana and Korle Bu Teaching Hospital
Background on Ghana

- **Low TFR of 4.0 (DHS 2008)**
  - 4.4 in 2003

- **Low modern CPR of 17% (DHS 2008)**
  - 19% in 2003
    - Main reason in 2003 for nonuse is fear of side effects

- **Abortion is legal**
  - Including injury to the woman’s physical or mental health
Background on Ghana cont.

- Despite the legal status of abortion
  - Most Ghanaians believe abortion is illegal
    - 54% of doctors surveyed knew abortion is legal (Morhe 2007)

- Safe abortion services are not widely available

- Complications from unsafe abortion are the second leading cause of maternal mortality in Ghana
Background on Ghana cont.

- Abortion is highly stigmatized
- Research on induced abortion in this setting is limited
- Little is known about the profile of induced abortion patients in this setting
Study Objective and Hypotheses

- **Objective**
  - To identify the relationship, individual, and socio-demographic characteristics of induced abortion patients as compared to spontaneous abortion and ectopic pregnancy patients

- **Hypotheses**
  - Induced abortion patients are more likely to report they are the main decision-makers in household and family planning use decisions as compared to women who had other pregnancy-related complications.
  
  - Women who have induced abortion complications are less likely to report pregnancy disclosure to their male partners as compared to women who had other pregnancy-related complications.
Methods: Study Population

- Participants were recruited from the gynecology wards at the two largest, teaching hospitals in Ghana
  - Komfo Anokye Teaching Hospital in Kumasi
  - Korle Bu Teaching Hospital in Accra
Inclusion Criteria

- Desire to wait at least 12 months until next pregnancy
- 18 years and older
- Fertile (self-report)
- Pregnancy-related condition
  - Induced abortion
  - Spontaneous abortion
  - Ectopic pregnancy
Methods of Analysis

- Chi-square and Fisher’s Exact tests
- Unadjusted and adjusted multinomial logistic regression
- Unadjusted and adjusted multiple variable logistic regression
- Referent group: spontaneous abortion
Dependent and Independent Variables

- **Dependent Variable**
  - Pregnancy-related complication:
    - “How did this most recent pregnancy end?”

- **Independent Variables**
  - **Relationship Characteristics**
    - Decision-making score
    - Pregnancy disclosure
  - **Individual Characteristics**
    - History of induced abortion
    - Family planning method knowledge
    - Family planning use
  - **Socio-demographic Characteristics**
    - Age, parity, education, religion, ethnicity, marital status, wealth, study site
Sample Characteristics

- The sample was divided into three groups:
  - 20% had induced abortion (n = 119)
  - 73% had spontaneous abortion (n = 441)
  - 8% had an ectopic pregnancy (n = 48)
Results: Sample Characteristics

Relationship
- Decision-making (S,E) +
- Pregnancy nondisclosure (S,E) +

Socio-demographics
- Age (S) -
- Religion
  - Muslim/Other (S) -/+ 
- Marital Status (S,E) -
Pregnancy Nondisclosure

- While most women disclosed the current pregnancy to their partners—some did not:
  - 24% in induced abortion subsample
  - 5% in the spontaneous abortion subsample
  - 6% in the ectopic pregnancy subsample
Decision-Making Score by Pregnancy Outcome

Pregnancy Outcome

- Spontaneous/Ectopic
- Induced

0 1 2 3 4 5

%
Summary of unadjusted and adjusted analysis: Factors associated with pregnancy termination
Induced Abortion vs. Spontaneous Abortion

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unadjusted</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making score</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Pregnancy Nondisclosure</td>
<td>+</td>
<td>na</td>
</tr>
<tr>
<td>Age</td>
<td>-</td>
<td>ns</td>
</tr>
<tr>
<td>Religion: None (ref = Christian)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Marital Status: Consensual Union (ref = Married)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Marital Status: Single (ref = Married)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Wealth: High (ref = Low)</td>
<td>-</td>
<td>ns</td>
</tr>
</tbody>
</table>
Results: Adjusted Analysis of factors associated with non-disclosure among the induced abortion subsample

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Nondisclosure vs. Disclosure (n = 119)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making score</td>
<td>+</td>
</tr>
<tr>
<td>Marital Status: Consensual Union</td>
<td>-</td>
</tr>
<tr>
<td>Study Site: Accra</td>
<td>-</td>
</tr>
</tbody>
</table>
Summary

- Spontaneous abortion and ectopic pregnancy patients did not differ on the characteristics included.

- Compared with spontaneous abortion patients, induced abortion patients are more likely to report:
  - Being the main decision-maker on household decisions
  - Pregnancy nondisclosure
  - Consensual Union or Single
  - No religion

- Pregnancy nondisclosure among induced abortion patients is associated with:
  - Greater decision-making autonomy
  - Being in a consensual union
Limitations

- Data are limited to large teaching hospitals in Ghana and to patients 18 years of age and older

- Women who safely terminated pregnancies or women who did not terminate unwanted pregnancies are not represented

- Misclassification bias: women self reported pregnancy-related complication
Strengths

- Two control groups
  - Spontaneous abortion
  - Ectopic pregnancy - less likely to be misreported

- Data on induced abortion in a setting where little is known about induced abortion

- Understanding the profile of induced abortion complication patients in Ghana
Implications

- Increase support for unmarried women who make the decision to induce an abortion without disclosing the pregnancy to their male partners
- Increase awareness of the legal status of abortion
- Increases the awareness and availability of safe abortion services both at the provider and population level
- Promotion of increased contraceptive use
Thank-you