Adherence 2017

JUNE 4-6, 2017 • MIAMI

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Knowledge, Adherence, and Attitudes of HIV-positive Adolescents at Komfo Anokye Teaching Hospital, Kumasi, Ghana

1Alexa M. Choy, BSE, 2Anthony Enimil, MD, 1Rebecca Reece MD and 3Duane Barksdale
1The Warren Alpert Medical School of Brown University
2Komfo Anokye Teaching Hospital, Kumasi, Ghana
3Brown University, Providence, RI
Conflict of Interest Disclosure

The authors have no real or apparent conflicts of interest to report
Introduction

- Over 200,000 new pediatric HIV cases occur each year, contributing to over 3,000,000 HIV-infected children worldwide
- Of these children, 90% live in sub-Saharan Africa
- Perinatally infected youth are reaching adolescence in growing numbers
In Ghana, an estimated 24,806 adolescents are living with HIV.

Kumasi, the capital city of Ghana’s Ashanti region and the second largest metropolitan area in the country, bears a significant percentage of this burden.
Background

- Komfo Anokye Teaching Hospital (KATH)
  - 2nd largest teaching hospital in Ghana
  - Ashanti region’s tertiary referral center

- KATH Adolescent HIV Clinic
  - Over 150 adolescent patients
Study aims

• (1) What is the level of knowledge of HIV and its transmission among adolescents in this region?
• (2) Which factors pose the greatest barriers to ART adherence?
• (3) What challenges do adolescents living with HIV face in navigating sexual relationships?
Methods

- Participants were recruited from the Adolescent HIV Clinic at Komfo Anokye Teaching Hospital (KATH)
- Inclusion criteria included
  1. Receiving treatment from the adolescent clinic
  2. Age 12-19 years
  3. Have knowledge of their HIV diagnosis
  4. Are capable of answering questions in English or Twi (the local language)
- Assent and consent was obtained from participants and their caretaker/guardian
Methods

- 30-minute, semi-structured interviews were conducted, focusing on the following:

  **Part I: Knowledge and beliefs**
  - Knowledge of HIV transmission
  - Source of knowledge
  - Understanding of HIV prevention
  - Sexual health

  **Part II: Barriers to ARV adherence**
  - Most common barriers to daily treatment (access, stigma, etc.)
  - Importance of daily adherence

  **Part III: Attitudes and Behaviors**
  - Experiences with stigma from peers
  - Risk behaviors
  - Social supports
  - Sexual activity
  - Perceptions of future
Participants

• N=53
• 26 males, 27 females
• Ages 12-19 (average age= 15.6).
• Average of 2.94 siblings each
• Average age of disclosure was 10.6 years
## Results: Knowledge of HIV Transmission

<table>
<thead>
<tr>
<th>Mode of Transmission</th>
<th>Correctly identified as TRUE</th>
<th>Mode of Transmission</th>
<th>Correctly identified as FALSE</th>
<th>Incorrectly identified as TRUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>90.6%</td>
<td>Touching someone with HIV</td>
<td>94.3%</td>
<td>Kissing</td>
</tr>
<tr>
<td>MTCT</td>
<td>86.8%</td>
<td>Using toilet used by someone with HIV</td>
<td>73.6%</td>
<td>Insect bites</td>
</tr>
<tr>
<td>Unprotected sex</td>
<td>86.8%</td>
<td>Sharing drinks</td>
<td>83.0%</td>
<td>Witchcraft</td>
</tr>
<tr>
<td>Needle sharing</td>
<td>85.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral sex</td>
<td>79.2%</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Results: Knowledge of HIV Transmission

- Average correct = 77.2%, SD = 14.8
- 27 (51%) participants correctly identified all 5 of the following as “True”
  - Unprotected sex
  - Sharing needles
  - Blood contact
  - MTCT
  - Oral sex
- No significant difference between males vs. females (p=0.30)
- No significant correlation of percent correct with age (R=0.167, p=0.23)
Results: Knowledge of HIV Transmission

- Participants who learned about HIV in school had a significantly higher % correct than those who did not (80.7% vs. 70.8%, p=0.01)
- Of those who incorrectly answered “true” to insect bites or witchcraft, 75% and 79% denied learning about HIV in school, respectively
Results: Barriers to Adherence

- Participants rated the frequency with which they face each of the above barriers to ARV adherence as "Never", "Sometimes", "Often", or "Always".
- The most common barriers to adherence included access to food (50.9%), medication shortages (35.8%), and transportation (35.8%).
Results: Sexual behavior and disclosure

- Participants were asked to identify the following as either “True” or “False”: “I would tell a partner I have HIV before having sex”
- Only 20 (38%) reported that they would disclose
  - 11 (42%) males vs. 9 (33%) females
- No significant difference in % correct among those who would vs. those who would not disclose
Results: Sexual behavior and disclosure

- Participants were asked to identify the following as either “True” or “False”: “I feel comfortable telling a partner I have HIV before having sex”
- Only 19 (36%) participants felt comfortable with disclosure
Results: Sexual behavior and disclosure

- 40 (75.5%) participants reported that they would use a condom or have a partner use a condom
  - 88.4% of males
  - 63% of females
- Of the 33 who would not disclose, 10 (30%) also would not use condoms
Conclusion

• The adolescent HIV population at KATH has a reasonably high understanding of HIV transmission, suggesting that education-based interventions have been successful.

• Despite this, over 60% of participants report that they would not disclose their HIV status to a sexual partner, and 25% deny that they would use condoms.

• This represents an urgent public health issue as these adolescents transition into becoming sexually active adults.
Future Directions

• Interventions to address apprehension about disclosure, condom use
  • Potential strategies
    ➢ Improve existing adolescent support groups
    ➢ 53% participants reported that they have attended a support group
    ➢ Peer-education and support
    ➢ Studies have shown mixed results, limited efficacy in reducing sexual risk behavior
    ➢ Involve adolescents in assessing needs, intervention development and follow up
    ➢ School-level interventions
Acknowledgements

Special thanks goes to the research team and nursing staff at KATH, especially Shadrack Osei Asibey for his valuable contributions to the production of this study. Funding for this project was provided through the Brown University Minority Health and Health Disparities International Research Training Program (MHIRT).
Thank you!
Alexa_choy@brown.edu