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

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Conflict of Interest Disclosure

The authors have no real or apparent conflicts
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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



Background

- 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

Correctly identified the following as TRUE		Correctly identified the following as FALSE		Incorrectly identified the following as TRUE	
<i>Mode of Transmission</i>	<i>%</i>	<i>Mode of Transmission</i>	<i>%</i>	<i>Mode of Transmission</i>	<i>%</i>
Blood	90.6	Touching someone with HIV	94.3	Kissing	52.8
MTCT	86.8	Using toilet used by someone with HIV	73.6	Insect bites	43.4
Unprotected sex	86.8	Sharing drinks	83.0	Witchcraft	34.0
Needle sharing	85.0				
Oral sex	79.2				



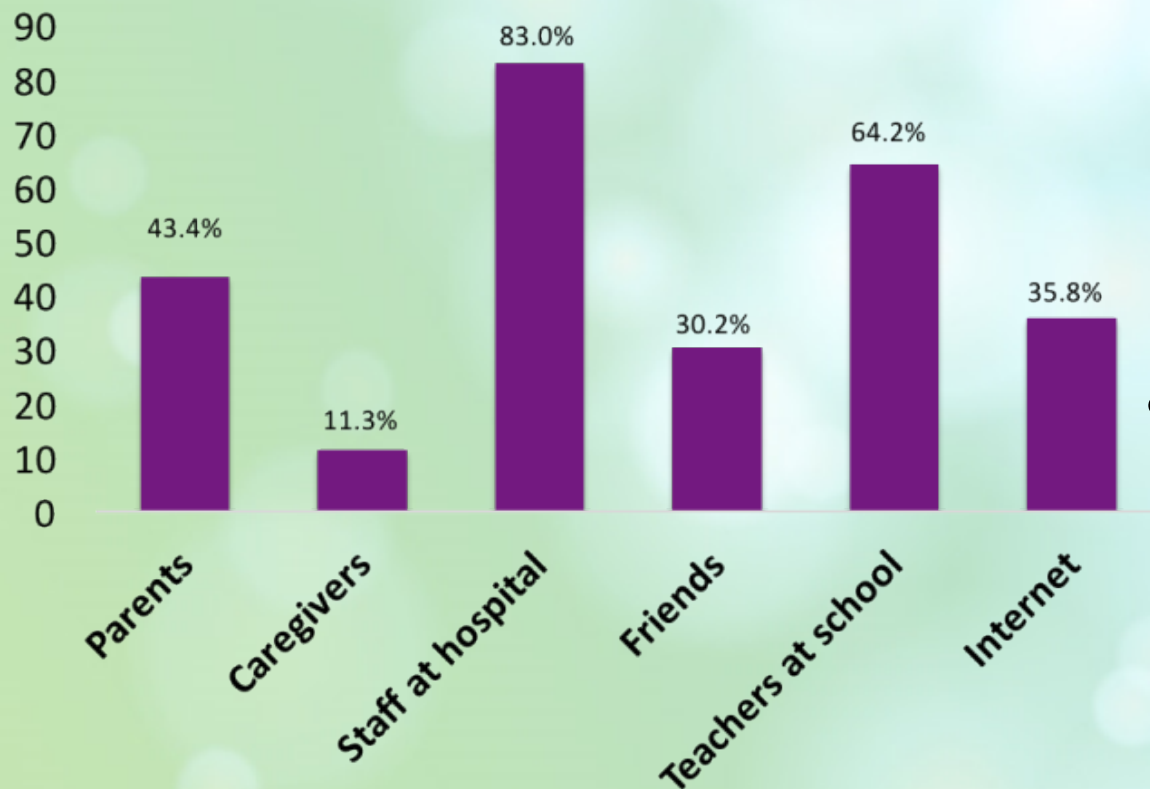
Results: Knowledge of HIV Transmission

- 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

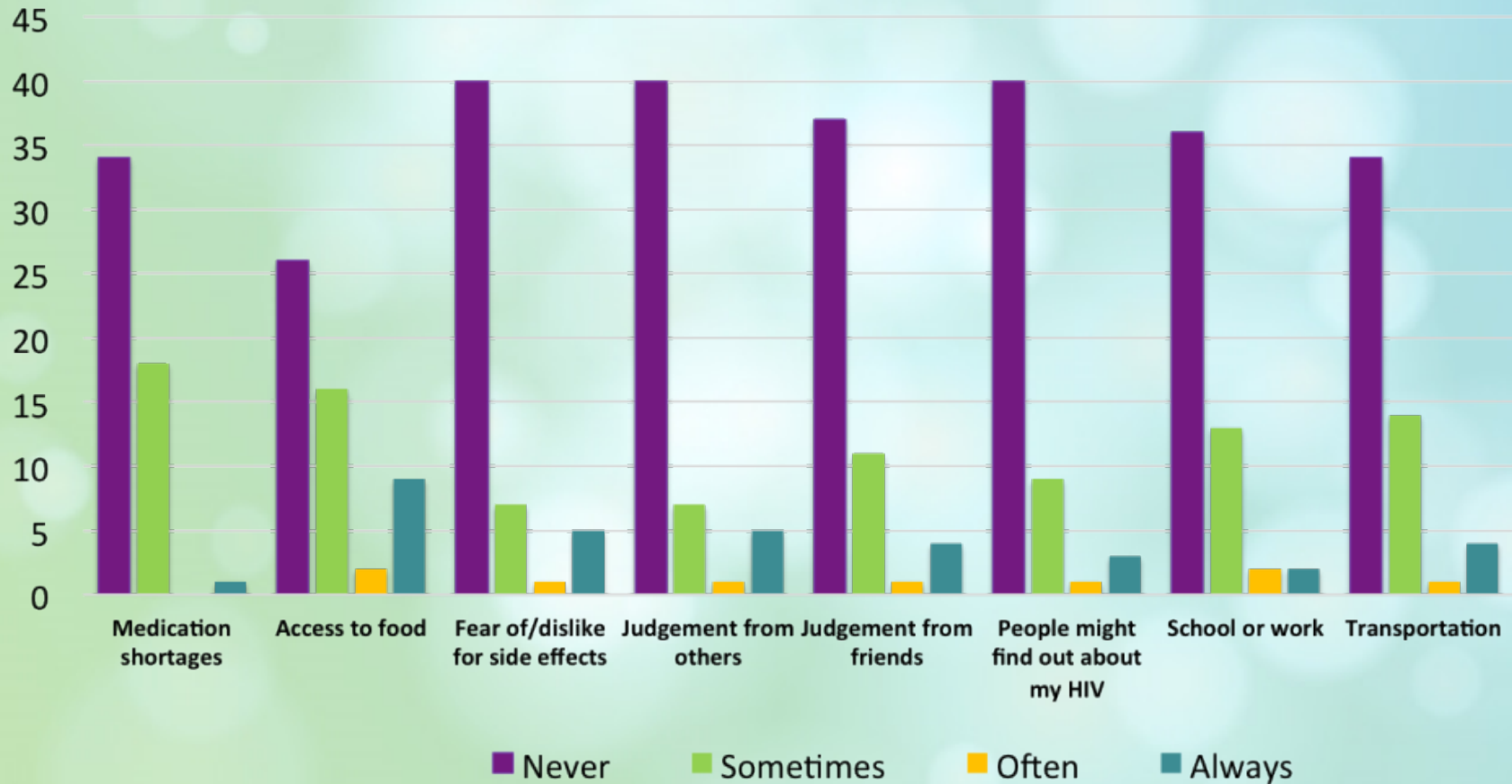
Source of Knowledge



- 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

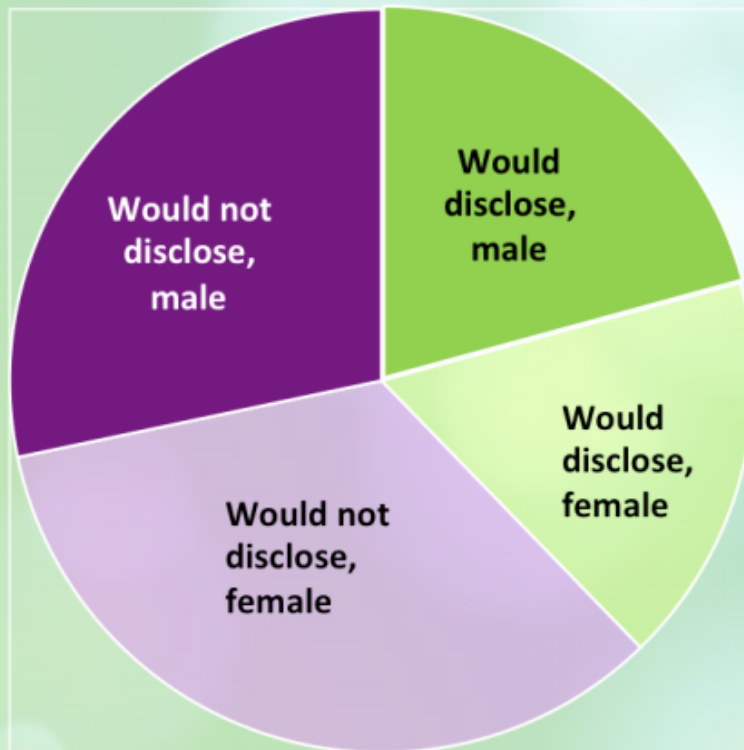


- Participants rated the frequency with which they face each of the above barriers to ARV adherence as "Never", "Sometimes", "Often", or "Always".
- The most common barriers to adherence included access to food (50.9%), medication shortages (35.8%), and transportation (35.8%).



Results: Sexual behavior and disclosure

DISCLOSURE TO SEXUAL PARTNERS



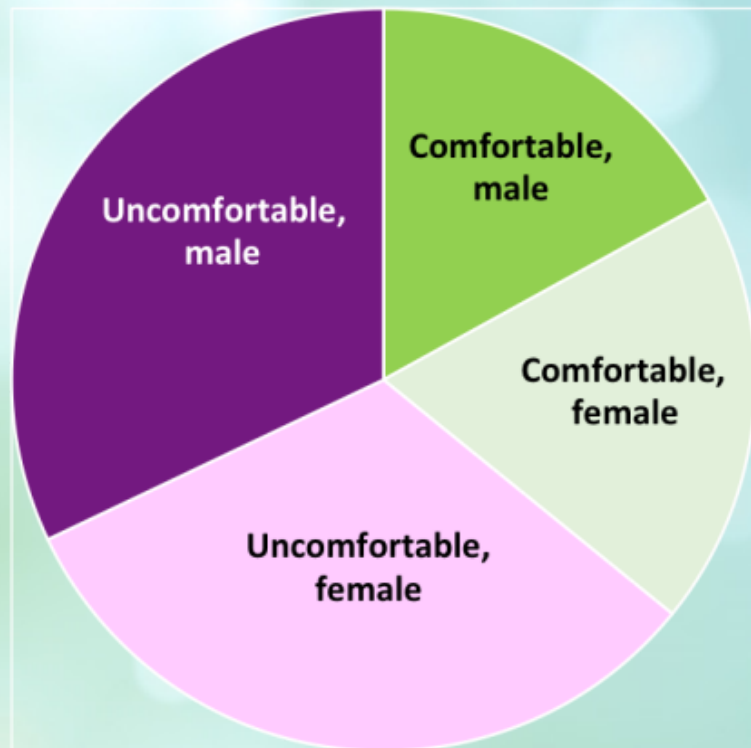
- Participants were asked to identify the following as either "True" or "False": "I would tell a partner I have HIV before having sex"
- Only 20 (38%) reported that they would disclose
 - 11 (42%) males vs. 9 (33%) females
- No significant difference in % correct among those who would vs. those who would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



Results: Sexual behavior and disclosure

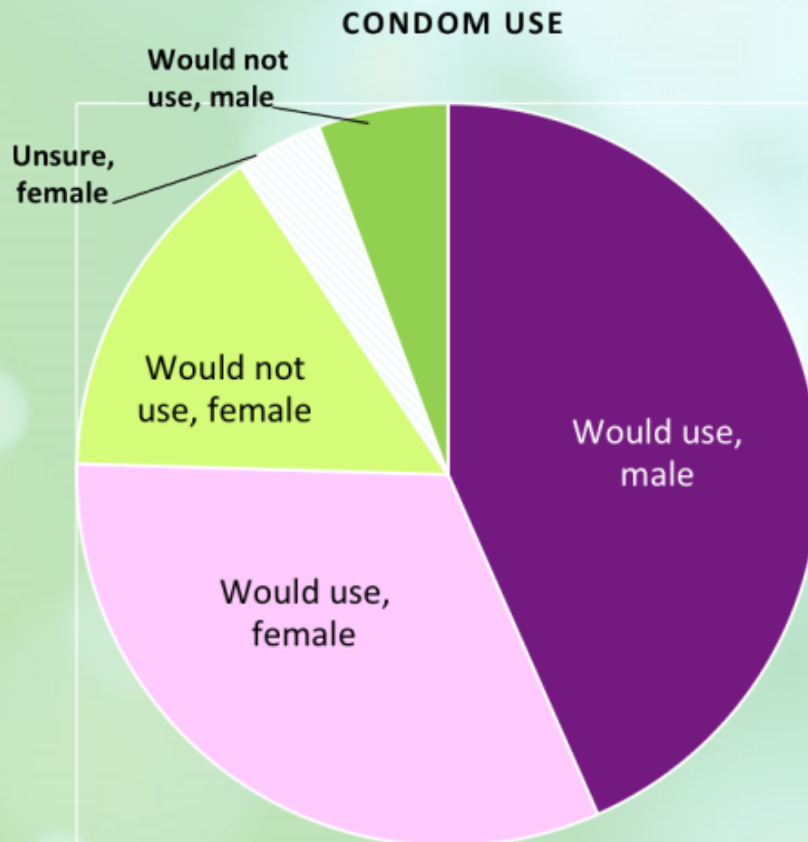
- Participants were asked to identify the following as either "True" or "False": "I feel comfortable telling a partner I have HIV before having sex"
- Only 19 (36%) participants felt comfortable with disclosure

COMFORT 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



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Thank you!
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