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"For ever and ever, Amen": facilitators of adherence to antiretroviral therapy in Nairobi urban informal settlements
Conference Item [eg. keynote lecture, etc.]

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For ever and ever amen: facilitators of adherence to antiretroviral therapy in Nairobi urban informal settlements

By: Eliud Wekesa and Ernestina Coast

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Definitions

- ART = Antiretroviral treatment
- Adherence = the extent to which a person’s behaviour in terms of taking medications, following a diet and executing lifestyle changes follows agreed recommendation from health care provider (WHO 2003)

i.e Patient involved in the decision to take medicines correctly: right dose, right frequency, and right time.
Why adherence?

ART Treatment

ADHERENCE TO ART
STRICT OR NEAR PERFECT

Restoration of health, quality life, Reduced morbidity and mortality

NON-ADHERENCE

Treatment failure, Increased morbidity, mortality
Drug resistance
Evidence: Adherence Success in SSA?

- Expectation of poor adherence in SSA – poverty interactions
- But, adherence in SSA is better than Global North
- Meta-analysis (Mills et al, 2006)
  - SSA=77% adherent
  - North America=55% adherent

**Research question:** How do PLWHA in a resource poor setting achieve adherence success?
Study setting and methodology

Methods:
- Questionnaire (n=233)
- In-depth interviews (n=54)
- Key informant interviews (N=10)
- Recruitment: PLWHA civil society, community.

Sites: APHRC Nairobi DSS sites
- Viwandani
- Korogocho

Measurement: Self report; perfect adherence=71%
### Explanatory factors

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Items on scale</th>
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<tbody>
<tr>
<td>Adherence counseling/adherence education</td>
<td>Index</td>
<td>12</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Index</td>
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<td>Doctor/patient relationship</td>
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<tr>
<td>Psychological distress</td>
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<tr>
<td>ART/HIV knowledge</td>
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<tr>
<td>Social support</td>
<td>Index</td>
<td>8</td>
</tr>
<tr>
<td>Side effects</td>
<td>Index</td>
<td>12</td>
</tr>
<tr>
<td>Alcohol and drug use</td>
<td>Dichotomous</td>
<td></td>
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<tr>
<td>Disclosure of HIV status</td>
<td>Dichotomous</td>
<td></td>
</tr>
<tr>
<td>Adherence</td>
<td>Dichotomous</td>
<td></td>
</tr>
<tr>
<td>Age, sex, schooling, ethnicity, marital status</td>
<td>Categorical</td>
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</tbody>
</table>
Significant predictors of adherence (Multivariate logistic regression analysis)

- **Adequate counselling**
- Depression/stress
- Disclosure of HIV status
- Social Support

**Odds ratio**

- <12 months (Ref)
- 12-23
- 24-35
- Disclosure of HIV status
- Social Support

*Note: The diagram provides a visual representation of the odds ratios for each predictor. The values are not explicitly stated in the image.***
Qualitative results

Social support

“My Auntie, mama, my young brother here who comes over to check what’s cooking so we can share. The first thing he and others ask at 9 o’clock is whether I have swallowed the drugs”

(ART user Koch)
Any quotes made about the most significant finding i.e.: disclosure of HIV status?

If not, then you should raise the issue that qualitative findings in some parts do not support the quantitative findings – don’t be selective about only showing corroborative qualitative evidence.
Further dimensions revealed by qualitative analyses

1. obeying health care providers instructions without question: “.. people have different views but I will take the doctor’s word because it’s the doctor who knows how I am using the drugs, blood parameters—that is the one I will believe because he knows all and is my “tutor” (ART user viwandani

2. Specific time for drug intake: ” At 8.00 am and 8.00 pm... Sometimes I take the medications before eating because when it’s 8’oclock..., I just take the medications”. (ART user Koch)

“At 10.00 am and at 10.00 pm.. one in the morning and 2 at night” (ART user Viwandani)

3. Belief in the effectiveness of ART: “Yes, like me when I got the infection, I was bed-ridden was not where I am now, was not able to walk from my bed. After taking the drugs...I’m well” (ART user Korogocho)

4. Self motivation

“..For ever and ever amen (laughter) ..throughout...Till the end. Unless God comes in another way”. (ART user, woman Viwandani)
Discussion

- Study adherence level of 71% adds credence to evidence that adherence rates can be high
- Programmatic implications – little room for complacency
  - Adherence decline with time
  - Sustainability of free treatment
- Individual-level characteristics were not significantly associated with adherence, including factors identified as important in resource-rich settings:
  - Alcohol and drug use
  - FEAR OF? WHAT? side effects
  - Self-efficacy not significant here.
- Reason = determinants of adherence in SSA go beyond the individual and treatment to encompass the social environment i. e support
Conclusions

- To understand determinants of adherence in a resource-poor setting we need to go beyond individual and treatment factors.
- Need to include the wider social environment.
  - Adherence is not an individual, one-off event, but a communal process involving:
    - Other PLWHAs
    - Families
    - Kin and social groups
    - Health care providers
- With support, urban poor residents in the developing world can also achieve optimal adherence levels.
- Early fears of “antiretroviral anarchy” in these settings appear unfounded.