Male use of VCT, enrolment into HIV-care and effect on female partner uptake of modern contraceptives among marital couples in Rakai, Uganda

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Introduction

- The use of VCT and enrolment into HIV-care (HIVC) are important opportunities for increasing the provision and use of sexual and reproductive health services.

- Although use of these services by women are associated with increased uptake of family planning (FP) methods, especially condoms (Afr J Reprod Health 2010; 14[4]: 91-101).

  - Data are limited on the effect of male use of the same services on female partner’s uptake of Family planning.

- Concerns about women’s health due to increase in registered pregnancies mainly among the HIV+, makes male involvement in FP more relevant (AIDS Res Treat. 2011;2011:519492. Epub 2011 Jan 19.)
Objective

To investigate the association between male use of VCT, enrolment into HIVC and their effect on the female partner’s utilization of modern contraceptives by couple’s HIV status in a rural resource limited setting of Rakai, Uganda
Study site

- Rakai Health Sciences Program (RHSP) annual population-based surveys, for the years Sept 2003-Nov 2009
- Annually, ~12,000 people (15-49 years) in 50 communities
- HIV
  - Prevalence ~11%
  - Incidence 1.3/100py
  - ~68.5% of HIV+ in care
  - ~1800/5,000 HIV+ patients in Care already initiated ART
- Rakai district
Methodology

• Data collected included:
  • Uptake of contraceptives, sources of methods, fertility desires, number of children born, current pregnancy and marital status
  • Receipt of VCT 12 months prior to the surveys
• For the HIV+, survey data were linked to the HIV care service program to ascertain enrollment into care
Statistical Analysis

The primary outcome;

1. **Condoms-only (C-only):** if a woman used condoms-only for FP and no other modern contraceptive

2. **Other modern Family planning methods (MFP):** if a woman used pills, injections, IUD or Norplant, with/without condoms

3. **Not used:** if a woman did not use condoms for FP or any other modern contraceptive method

Main Exposure: VCT, or enrolment into HIVC *(for the HIV+ respondents)*

1. **No receipt of VCT-12 months** (and not in HIVC if HIV+)

2. **Received VCT-12 months** (but not in care if HIV+)

3. **In HIVcare** (If HIV+, with/without being on ART)
Statistical Analysis

• Inclusion:
  • Couples not using permanent FP methods (tubal ligation/ hysterectomy)
  • Women who desired no more children/ wanted to postpone for 2+

• Multinomial logistic regression to estimate RRR (and 95%CI)
  1. Condoms-only/MFP vs No-use of contraception
  2. Compared Men using VCT/ enrolled in HIV care to those without VCT or not enrolled in care if HIV+
  3. Adjusted analyses for potential confounders (female partner age, and social economic status (SES)), and all variables with 2.0 \leq RRR \leq 0.5 or \ p \leq 0.10 in the bivariate analysis
  4. All analyses were stratified by couple’s HIV status

• Statistical analyses used STATA software package version 9.2
RESULTS

Table 1 Overall and visit specific distribution of couple HIV status, female family planning method and receipt of HIV care/VCT

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<tbody>
<tr>
<td><strong>Overall total</strong></td>
<td>1,085</td>
<td>1,170</td>
<td>1,287</td>
<td>1,301</td>
<td>4,843</td>
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<tr>
<td><strong>Couple HIV status</strong></td>
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<tr>
<td>M+F-/M-F+</td>
<td>9.1</td>
<td>8.2</td>
<td>7.2</td>
<td>7.1</td>
<td>7.9</td>
</tr>
<tr>
<td>M+F-/M+F+</td>
<td>13.7</td>
<td>12.8</td>
<td>10.4</td>
<td>14.1</td>
<td>12.7</td>
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<tr>
<td><strong>Female method of FP</strong></td>
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<tr>
<td>Condom-only</td>
<td>6.6</td>
<td>7.9</td>
<td>11.6</td>
<td>13.8</td>
<td>10.2</td>
</tr>
<tr>
<td>Other modern FP</td>
<td>36.3</td>
<td>36.2</td>
<td>37.1</td>
<td>38.7</td>
<td>37.1</td>
</tr>
<tr>
<td><strong>Couples Male is HIV+</strong></td>
<td>149</td>
<td>150</td>
<td>134</td>
<td>183</td>
<td>616</td>
</tr>
<tr>
<td>VCT/enrolment into care by M+</td>
<td>44.3</td>
<td>46.7</td>
<td>67.2</td>
<td>65.0</td>
<td>56.0</td>
</tr>
<tr>
<td>Enrolment into care by M+</td>
<td>4.7</td>
<td>26.7</td>
<td>50.7</td>
<td>50.3</td>
<td>33.6</td>
</tr>
</tbody>
</table>

- Injectables (28.8%), Pills (5.8%), Norplant (2.2%) and ~6.2% traditional methods
RESULTS-1

Fig. 1 Females desiring no more children by couple HIV-sero status

- Female desire for no more births was highest M+F+ (77.9%) or any HIV+ marital relationship

Source: RHSP cohort annual surveys Sept 2003-Nov 2009
RESULTS-2

Condoms-only were most common among F+ in M+F+ and lowest in F- in M+F-

Over 30% of females used other MFP irrespective of male’s HIV status

Source: RHSP cohort annual surveys Sept 2003-Nov 2009
• Use of condoms for FP increased with male partner’s level of involvement in care

• While other MFP decreased steadily, especially in Females in M+F-
### Table 2. Female FP use by male partner’s VCT/enrolment into care

<table>
<thead>
<tr>
<th></th>
<th>M+F+</th>
<th>M+F-</th>
<th>M-F+</th>
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<tbody>
<tr>
<td>VCT receipt past 12 months/</td>
<td></td>
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<tr>
<td>HIV-care services</td>
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<tr>
<td>*Adj.RRR (95%CI)</td>
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<td>Adj.RRR (95%CI)</td>
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<tr>
<td>Use of other Modern methods vs No FP use</td>
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<tr>
<td>No VCT and No Enrollment</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
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<tr>
<td>Yes, received VCT past 12m</td>
<td>1.19 (0.66, 2.12)</td>
<td>0.72 (0.35, 1.51)</td>
<td>0.53 (0.24, 1.22)</td>
</tr>
<tr>
<td>In HIV care services</td>
<td>0.86 (0.40, 1.83)</td>
<td>0.68 (0.27, 1.71)</td>
<td>NA</td>
</tr>
<tr>
<td>Use of Condoms-only vs No FP use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No VCT and No Enrollment</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Yes, received VCT past 12m</td>
<td>1.31 (0.57, 3.00)</td>
<td>2.96 (0.74, 11.88)</td>
<td>1.10 (0.42, 2.87)</td>
</tr>
<tr>
<td>In HIV care services</td>
<td>1.61 (0.66, 3.94)</td>
<td><strong>5.88 (1.36, 25.34)</strong></td>
<td>NA</td>
</tr>
</tbody>
</table>

*adjusted for female age, type of marital relations (monogamous/polygamous), survey periods and desire for postpone/stop childbearing

- Male enrolment into care/use of VCT tended to be associated with lower uptake of modern contraceptive, but with higher use of condoms for FP
Conclusions

- Enrolment into HIV care program by the HIV+ male partner is associated with the HIV-negative female partner’s higher utilization of condoms-only for family planning, but not other modern contraceptives.

- Male’s uptake of VCT was not associated with female use of family planning.

- Desire to stop childbearing is more common among females in an HIV+ marital relationship.
Recommendations

- Programs providing HIV-related services may need to strengthen/review the VCT components offered to men so as to draw strategies that can help improve female partner use of family planning, especially when the male partner is HIV-infected
Thank you for listening