Moderators of a Home-based Couples Intervention on Couples HIV Testing and Counselling Uptake in Kenya

1181

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Background

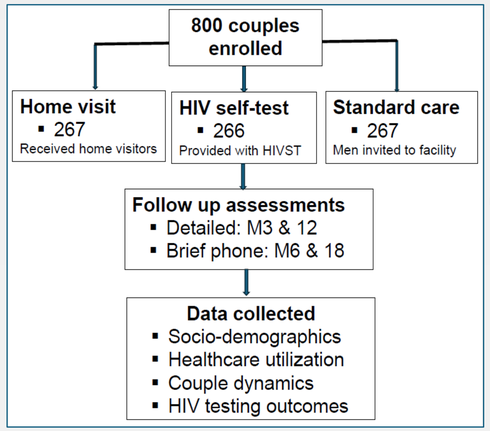
- Couples HIV testing interventions, especially among pregnant couples, are essential to promote support and improve family health.
- Identifying individuals possessing characteristics for which interventions are most effective is critical for achieving personalized care and optimal impact.
- Personalized care is responsive to individual needs and, therefore, likely to be effective in addressing these needs.



- We sought to identify and assess moderators of a home-based couples' intervention on the uptake of CHTC.

Methods

- Design: Three-arm randomized control trial enrolling pregnant women and their male partners.



- Inclusion criteria
  - ≥15 years of age
  - ≤36 weeks of pregnancy
  - In a stable relationship
  - Not yet HIV tested as a couple
- HIV-related criteria
  - 2/3 sample HIV positive
  - 1/3 HIV negative/unknown
  - All women offered HIV test at ANC
  - HIV concordant couples excluded
- Data collection was conducted through in-person or phone interviews at baseline, months 3, 6, 12, and 18
- Main outcome of CHTC measured at month 12.
- Our home-based couples intervention resulted in a significantly higher rate of uptake of CHTC, as compared to standard care
- Analysis: Used a log-binomial generalized estimating equation model to assess the potential moderating effect
- We reported marginal probabilities and effects

Results

Table 1: Socio-demographic attributes of participants

Columns by: Study Arm (N = 1599 individuals)	HIVST	Home	SC	Total
n (%)	n=532	n =534	n= 533	1599 (100.0)
Age category (years), n (%)				
<19	5 (0.9)	5 (0.9)	11 (2.1)	21 (1.3)
19-24	129 (24.2)	109 (20.4)	138 (25.9)	376 (23.5)
25-34	278 (52.3)	266 (49.8)	255 (47.8)	**799 (50.0)**
≥35	120 (22.6)	154 (28.8)	129 (24.2)	403 (25.2)
Male Partner Age-disparity (Years), n (%)				
<5	238 (44.7)	178 (33.3)	172 (32.3)	588 (36.8)
5-10	210 (39.5)	214 (40.1)	224 (42.1)	**648 (40.6)**
>10	84 (15.8)	142 (26.6)	136 (25.6)	362 (22.7)
Polygynous relationship, n (%)				
No	435 (81.8)	470 (88.0)	441 (82.7)	1346 (84.2)
Yes	97 (18.2)	64 (12.0)	92 (17.3)	**253 (15.8)**
Relationship length (years), median (IQR)	4.5 (2.1; 9.0)	4.9 (1.9; 9.1)	3.3 (1.3; 8.0)	4.0 (1.7; 8.6)
Education, n (%)				
Primary school or less	149 (28.0)	181 (33.9)	163 (30.6)	493 (30.8)
More than primary school	383 (72.0)	353 (66.1)	370 (69.4)	**1106 (69.2)**
Alcohol consumption, n (%)				
No	489 (91.9)	486 (91.0)	478 (89.7)	1453 (90.9)
Yes	43 (8.1)	48 (9.0)	55 (10.3)	146 (9.1)
Wealth Index Score Tertiles, n (%)				
Tertile 1-Low	194 (36.5)	192 (36.0)	223 (41.8)	609 (38.1)
Tertile 2-Medium	131 (24.6)	174 (32.6)	168 (31.5)	473 (29.6)
Tertile 3-High	207 (38.9)	168 (31.5)	142 (26.6)	517 (32.3)
Pregnancy age at first ANC visit, median (IQR)	18.0 (14.0; 22.0)	16.0 (12.0; 22.0)	18.0 (12.0; 22.0)	**18.0 (13.0; 22.0)**
Gravida, median (IQR)	3.0 (2.0; 4.0)	3.0 (2.0; 5.0)	3.0 (2.0; 4.0)	3.0 (2.0; 4.0)
Parity, median (IQR)	2.0 (1.0; 3.0)	2.0 (1.0; 3.0)	2.0 (1.0; 3.0)	**2.0 (1.0; 3.0)**
HIV status, n (%)				
HIV positive	174 (33.2)	188 (35.7)	185 (35.6)	**547 (34.9)**
HIV negative	349 (66.6)	336 (63.9)	333 (64.2)	1018 (64.9)

- Half of the participants were aged 25-34, with 41% of couples having an age disparity of 5-10.
- The couples had a median marriage length of 4 years and half of the women had a parity of two.
- Over one-third of the participants reported testing HIV positive.
- Out of nine factors assessed, we found two significant moderators of the intervention effect on CHTC
  - Woman's HIV status
  - Parity.
- Length of the couple's relationship showed a trend toward being a significant moderator.

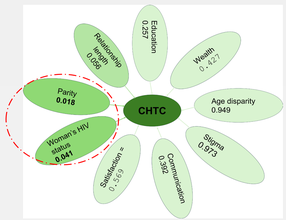
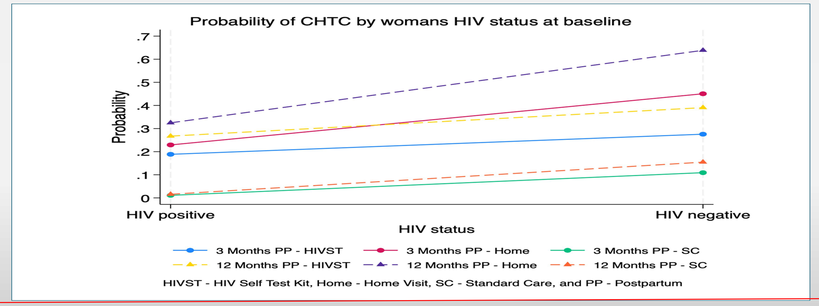
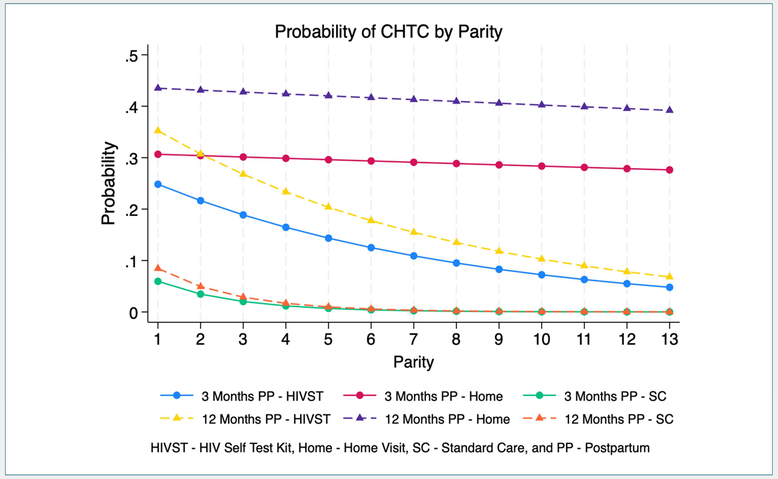


Figure 1: Woman's HIV status as moderator of intervention effect on CHTC



- Probability of CHTC was higher among HIV-negative women compared to WLWH, with marginal effects of:
  - 11% in HIVST
  - 27% in HV
  - 12% in the SC arm

Parity as moderator of intervention effect on CHTC



Conclusion

- Home-based intervention had a more beneficial impact on CHTC uptake in couples:
  - Where the woman was HIV-negative at baseline.
  - With lower parity.
- Future intervention roll-out aiming for higher CHTC might target HIV-negative women with lower parity.
- Other intervention modalities may be needed to help women living with HIV and women of higher parity with CHTC/facilitated disclosure.

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