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HIV Prevention
Trials Network

Economic resources and HIV preventive behaviors among school-enrolled young women in rural South Africa (HPTN 068)

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Background:

- **Individual economic resources may have greater influence on school-enrolled young women's sexual decision-making than household wealth measures.**
- However, few studies have investigated the effects of personal income, employment, and other financial assets on young women's sexual behaviors.
- Disproportionate HIV rates among South African young women
 - 5.5%, ages 15-19
 - 27.0%, ages 20-24
 - 37.8% ages 25-29
 - 3 to 4 times higher HIV prevalence than men
 - Higher rates of sexual exploitation and debut

Research Gap:

- Studies investigating factors associated with sexually protective behaviors among youth have largely focused on non-economic influences.
- Current economic studies have shown mixed results, and have primarily examined household SES gradients
- Insufficient reductions in HIV transmissions among South African young women from current global HIV prevention strategies

Study Aims:

- **#1:** To examine whether one or more individual economic resources among school-enrolled young women differentially influences HIV-protective sexual behaviors.
- **#2:** To consider implications for leveraging young women's existing resources towards reducing young women's vulnerability to HIV infection.

Methods:

- HPTN Cash Transfer for the Prevention of HIV in SA YM (068)
 - **Baseline data:** n=2,533 school-enrolled South African young women, aged 13-20
 - **Primary outcome:** Binary measures of ever having sex and six HIV preventive behaviors
 - **HIV preventive behaviors:**
 - (1) periodic sexual abstinence
 - (2) consistent condom use
 - (3) changing partner selection process
 - (4) reducing number of sex partners
 - (5) talking to partner about HIV testing
 - (6) talking to partner about condom use
 - **Economic resources:** work for pay, money comes from job, money to spend on one's self, food sufficient, being unindebted, having savings, and having a banking account

Results: *Sample Characteristics (n=2,533)*

- **Ever had sex: 27.4% (n=693)**
- **Sample demographics:**
 - YW's mean age in years = 15.5 (± 1.7)
 - YW's mean age of sexual debut = 14.7 (± 3.4)
 - Sexual partner's mean age in years = 19.4 (± 4.0)
 - % of YM with partner aged > 5 years = 15.5% (n=105)
 - Living in one of 28 villages in rural Mpumalanga province located in northeast South Africa
 - All (100%) were unmarried, and having at least one parent or guardian at home with whom they were living

RESULTS: Table 1: Economic resources associated with ever having sex - Unadjusted & Adjusted Analyses

Young women with greater economic resources were more likely to have sexually debuted and therefore may have increased their risk of HIV exposure.

	Total	Never had sex	Ever had sex	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)
Number of women (n=)	2,533	1,840	693		
Work for pay	32.4%	29.8%	39.3%	1.52*** (1.27-1.82)	1.56*** (1.28-1.90)
Money comes from job	22.8%	21.6%	26.0%	1.28* (1.04-1.57)	1.33* (1.06-1.65)
Money to spend on self	10.3%	10.0%	11.0%	1.11 (0.84-1.47)	1.20 (0.89-1.63)
Food sufficient	65.1%	67.2%	59.5%	0.72*** (0.60-0.87)	0.81* (0.66-0.98)
Being unindebted	76.9%	80.0%	68.7%	0.55*** (0.45-0.67)	0.57*** (0.46-0.71)
Has savings	24.9%	24.7%	25.3%	1.03 (0.84-1.26)	1.17 (0.94-1.45)
Has banking account	16.2%	14.7%	19.9%	1.44** (1.15-1.81)	1.41** (1.10-1.80)
<small>* p<0.05, ** p<0.01, *** p<0.001; [a] Adjusted for woman's age, education, and household economic status.</small> Has 4 or more economic resources	15.6%	15.2%	16.7%	1.12 (0.88-1.42)	1.21 (0.93-1.56)

RESULTS: Table 2: Economic resources associated with **HIV preventive behaviors**

Frequencies and Percentages

After sexually debuting, women reported using several strategies to reduce HIV risk, some more common than others.

N = 693 Sexually-experienced young women		Periodic Sexual abstinence	Consistent condom use	Changed partner selection	Reduced no. of sex partners	Talked to partner on HIV testing	Talked to partner on condom use
n (%) of reported behavior		85 12.3%	307 44.3%	120 17.3%	119 17.2%	496 71.6%	513 74.0%
Work for pay	Y	16.2%	41.5%	24.6%	16.5%	73.2%	73.5%
	N	9.7 %	46.1%	12.6%	17.6%	70.6%	74.4%
Money from job	Y	18.9%	40.6%	23.9%	16.1%	72.8%	70.0%
	N	10.2%	46.6%	15.3%	18.1%	71.7%	76.0%
Money for oneself	Y	10.5%	44.7%	19.7%	25.0%	81.6%	81.6%
	N	12.6%	44.4%	17.2%	16.4%	70.3%	73.1%
Food sufficient	Y	13.8%	44.4%	17.0%	17.7%	70.4%	71.4%
	N	10.3%	44.5%	18.0%	16.5%	73.2%	78.3%
Being unindebted	Y	10.9%	45.4%	16.4%	17.0%	73.3%	73.7%
	N	15.8%	42.6%	19.6%	17.7%	67.9%	75.1%
Has savings	Y	16.0%	44.6%	21.1%	17.1%	76.6%	73.1%
	N	11.1%	44.5%	16.1%	17.3%	70.1%	74.6%
Has banking account	Y	10.9%	52.9%	21.7%	21.7%	77.5%	75.4%
	N	12.7%	42.4%	16.3%	16.1%	70.1%	73.9%

RESULTS: Table 3: Economic resources associated with **HIV preventive behaviors**

Adjusted^a Odds Ratios (95% CIs)

Sexually-experienced young women with greater economic resources were also more likely to adopt HIV protective practices than women with fewer resources.

N = 693 Sexually-experienced young women	Periodic Sexual abstinence	Consistent condom use	Changed partner selection	Reduced no. of sex partners	Talked to partner on HIV testing	Talked to partner on condom use	Used ≥ 3 HIV preventive practices
n (%) of reported behavior	85 12.3%	307 44.3%	120 17.3%	119 17.2%	496 71.6%	513 74.0%	
Work for pay	1.71* (1.07-2.75)	0.86 (0.63-1.18)	2.38*** (1.58-3.58)	0.93 (0.62-1.41)	1.08 (0.80-1.53)	0.97 (0.68-1.39)	1.39* (1.02-1.90)
Money from job	2.06** (1.26-3.37)	0.80 (0.56-1.15)	1.81** (1.17-2.79)	0.90 (0.57-1.43)	1.02 (0.69-1.52)	0.76 (0.52-1.13)	1.12 (0.79-1.59)
Money for oneself	0.79 (0.35-1.78)	1.01 (0.61-1.68)	1.24 (0.66-2.32)	1.94* (1.08-3.46)	2.15* (1.13-4.06)	1.99* (1.04-3.80)	1.76* (1.06-2.92)
Food sufficient	1.39 (0.85-2.29)	0.95 (0.69-1.31)	0.87 (0.57-1.31)	1.08 (0.72-1.64)	0.87 (0.61-1.23)	0.72 (0.50-1.04)	1.00 (0.73-1.36)
Being unindebted	0.65 (0.40-1.06)	1.06 (0.75-1.48)	0.82 (0.53-1.26)	1.01 (0.65-1.56)	1.35 (0.93-1.94)	0.95 (0.64-1.39)	1.07 (0.76-1.48)
Has savings	1.54 (0.92-2.59)	1.02 (0.71-1.47)	1.47 (0.94-2.30)	1.02 (0.64-1.63)	1.47 (0.97-2.23)	0.97 (0.65-1.46)	1.21 (0.85-1.72)
Has bank account	0.87 (0.47-1.62)	1.49* (1.01-2.19)	1.39 (0.86-2.24)	1.44 (0.90-2.30)	1.55 (0.98-2.46)	1.19 (0.75-1.87)	1.69** (1.14-2.49)
Has ≥ 4 resources	1.56 (0.88-2.76)	1.16 (0.77-1.75)	1.96** (1.20-3.20)	1.13 (0.67-1.92)	2.01** (1.20-3.37)	1.09 (0.68-1.76)	1.86** (1.23-2.84)

* p<0.05, **p<0.01, *** p<0.001; [a] Adjusted for woman's age, education, household socioeconomic status, difference of partner age, partner education, partnership type

Conclusions:

- Increased economic resources may motivate positive behaviors to protect future assets, including HIV health.
- Economic hardship was positively associated with ever having sex, but not with sexually-protective behaviors.
- Economic-strengthening may complement HIV prevention efforts, provided young women are supported to leverage economic gains to protect against HIV.
- Type of economic resource, such as earned income, may provide a different socio-economic context for sexual health empowerment than other financial measures.

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