

# Love moderates relationships of partner type and condom use among women engaging in transactional sex

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## Background

- Across settings, women engaging in transactional sex have higher rates of STI/HIV compared to their same aged peers.
- Love 1) may differentiate romantic sexual relationships from transactional sexual relationships, 2) may not be stable over time, and 3) directly influences the likelihood of condom use—as emotional closeness increases condom use declines.
- Limited research has been conducted to understand how love and relational factors impact condom use among women engaging in transactional sex.
- To address this limitation, we conducted a study to prospectively assess women's sexual behavior and condom use using digital diaries delivered over cell phones.

## Objectives

1. To explore predictors of condom use during paid/traded vaginal intercourse events
2. To assess whether partner type moderates the relationship between love and condom use

## Methods

- Participants were recruited via targeted outreach (N=2), venue based sampling (N=5), and incentivized peer referral (N=19).
- Eligible women were 1) English-speaking and 2) ≥ 18 years of age who reported: 3) exchanging sex for drugs, money, or items of daily living within the preceding 90 days; 4) a likelihood that they would engage in sex exchange again within the proceeding 30 days; and 5) being able to safely store and charge a cellular phone.
- Participants completed diaries on a study-provided smartphone approximately every 12 hours for 4 weeks.
- Diaries assessed within-day mood, within-day love, as well as event-level factors thought to impact HIV/STI risk.
- Individual predictors were socio-demographic and behavioral risk factors assessed using a 90-day recall period.
- Feeling in love was a standalone item on a 5-point scale, "very" to "not at all," recoded (0/1) as "any degree of love" versus "very in love."
- The dependent variable was condom use during paid/traded intercourse (yes/no).
- Univariate and multivariable binary logistic regression models with generalized estimating equation correction.

## Results

- 18 women reported a total of 87 paid/traded sexual events (range 1 to 25 events, median = 5) which were included in the current analysis.
- Most (72.3%) engaged in at least weekly transactional sex prior to enrollment.
- There were no statistically significant differences in demographic characteristics between the 18 women who reported being paid and the 8 who did not (see table 1).

Table 1

Table 1. Description of Women Reporting Paid/Traded Vaginal Sex

Factors*	N	%
Mean age (SD); IQR 37-50	40.78	(12.8)
Black race	14	77.8%
Single relationship status	8	44.4%
< High school education	8	44.4%
Homeless	4	22.2%
Household income < \$10,000	14	77.8%
Non-sex work employment in last 90 days	8	44.4%
Frequency of sex work in last 90 days		
Daily	4	22.3%
Weekly	9	50.0%
Monthly or less frequently	5	27.7%
Experienced sexual abuse ≤ age 13 years	7	38.9%
Substance abuse within 90 days		
Weekly binge drinking	5	27.8%
Weekly or more frequent illicit drug use	10	55.6%
Criminal history		
History of prostitution arrest	11	61.1%
History of drug/alcohol arrest	12	66.7%
Self-reported health status of Excellent to Good†	12	66.7%
Sexually transmitted infection at baseline	5	27.8%

† Versus fair or poor health status.

Table 2

- Condoms were used in 51.7% of paid/traded sexual events (N= 45).
- At the univariate level:
  - Feeling in love was associated with greater odd of condom use.
  - Time of day and day of week were associated with lower odds of condom use.

Table 2. Description of 87 paid/traded intercourse events reported by 18 women engaging in sex work

	Odds Ratio	95% CI
<b>Within-day intrapersonal-factors</b>		
Feeling very in love (versus other love)	1.86**	1.11, 3.11
Positive mood (SD; range 1-5)	0.87	0.71, 1.07
Negative mood (SD; range 1-5)	1.01	0.90, 1.13
<b>Event-level contextual factors</b>		
Romantic (versus Non-romantic)	0.91	0.82, 1.02
Public (versus Private)	1.37	0.50, 3.73
Fri - Sun (versus Mon - Thurs)	0.77***	0.64, 0.93
Night (versus Day)	0.73**	0.53, 0.99
<b>Event-level sexual behaviors</b>		
Kissed (versus No)	0.74	0.36, 1.53
Gave oral sex (versus No)	0.63	0.28, 1.44
Received (versus No)	0.69	0.31, 1.52

In 2 events (4.9%) in which condoms were not used, participants did not disclose location. These events are not included in these analyses. <sup>a</sup> Public (e.g. hotel/motel versus car, park, abandoned building) versus private venue (own/partner's home); <sup>b</sup> Romantic (boyfriend/spouse) versus non-romantic partner (stranger, regular trick, drug dealer, or friend); \* p <0.10; \*\* p <0.05; \*\*\* p <0.01

Table 3

- After controlling for romantic partner type, feeling in love on a given day was associated with higher odds of condom use compared to when participants reported not feeling in love.

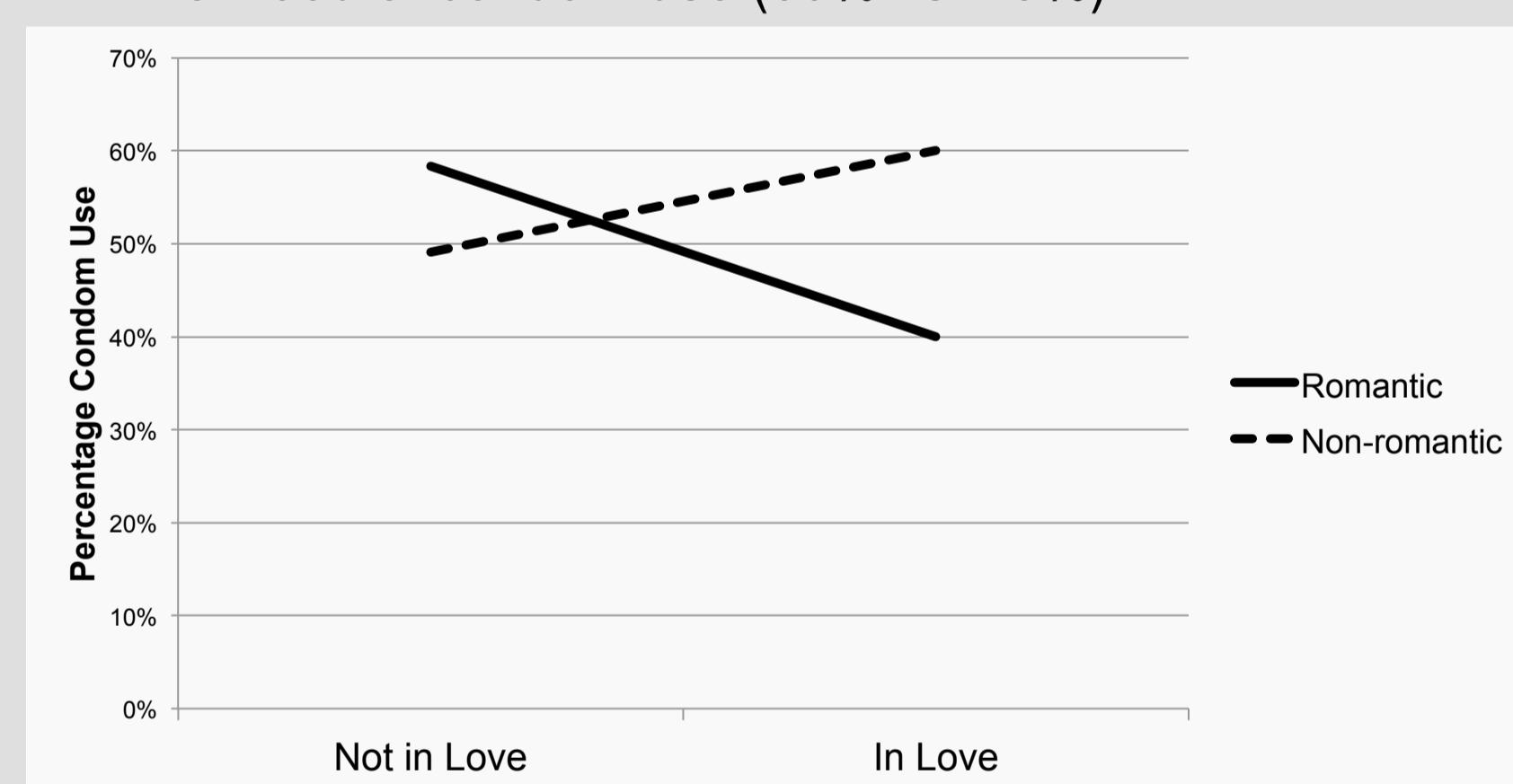
Table 3. Factors independently associated with condom use during 84 paid vaginal sex events reported by 17 FSWs

	Adjusted Odds Ratio	95% Confidence Interval	P-value
<b>Within day-level factors</b>			
Feeling very in love (versus other or not at all)	2.10	1.17, 3.79	0.01
<b>Event-level factors</b>			
Fri - Sun (versus Mon - Thurs)	0.78	0.62, 0.97	0.02
Night (versus Day)	0.80	0.62, 1.02	0.08
Romantic partner (versus Non-romantic) <sup>†</sup>	0.98	0.81, 1.18	0.82
Feeling very in love x Partner Type	0.50	0.29, 0.86	0.01

† (e.g. Boyfriend/Spouse vs Stranger, regular trick, drug dealer, or friend)

Figure 1

- In sexual events with romantic partners, feeling in love is associated with lower likelihood of condom use (40% vs. 58%), whereas in sexual events with commercial partners, feeling in love was associated greater likelihood of condom use (60% vs. 49%).



## Conclusions

- The current study provides some of the first evidence that affective state (i.e., being in love on the day of a sexual event) and partner type interact at the event-level to influence condom use among women engaging in transactional sex.
- Finding love is protective with certain partners, but not others, contributes to the growing body of research arguing for the need for HIV/STI, and more broadly sexual health, interventions to address love, emotional closeness and intimacy.
- Interventions focusing on the link between day-to-day variation in affective state on condom use may help women with risk management across partner types.

## Limitations

- This small pilot study may not have had sufficient power to detect some effects, particularly individual-level effects.
- Given the study's short duration, the number of events reported is limited.
- Indicating feeling "in love" on a given day does not necessarily mean that "love" is associated with the behavioral report associated with a given sex event sexual act.

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