

Relationship Level Predictors of Patient Initiated Partner Notification of Chlamydia Trachomatis Infection Among Men in New Orleans

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Background

- While expedited partner treatment and provider assisted referral are options for *Chlamydia trachomatis* (CT) partner notification, legal complications and budget limitations cause patient referral to remain the most commonly used strategy.
- Notification rates vary significantly across studies (22.8%-73.2%)^{1,2,3} which can be attributed to differing definitions of recent sex partners and differences in study population.
- Main partner status, long term partnership, high notification self-efficacy and prior STD history have been found to be associated with successful partner notification.^{1,2,4}
- The purpose of this study was to examine patient initiated partner notification rates and predictors in a population of heterosexual Black men treated for CT at a STD clinic in New Orleans, LA.

Methods

- Men attending an STD clinic in New Orleans, LA who had sex with a woman in the past 2 months and who were treated with 1g azithromycin for CT were re-tested at 1 month.
- Participants completed an ACASI survey at baseline and follow-up eliciting behavioral information surrounding all female partners in the past 2 months.
- Partner notification was assessed with the question "Were you able to talk to [partner Initials] about the infection and the need to get treated since [date of enrollment]?"
- Because 93.6% of participants were African American (AA), only AA men were included in data analysis.
- Data analysis was completed at the participant-partner dyad level utilizing generalized estimating equations (GEE) to accommodate intraclass correlation.

Table 1. Index Characteristics by Sex Partner Notification (N=403)*

Characteristic	Partner Notified n = 297 (%)	Partners Not Notified n = 106 (%)	p-value	OR of Not Notifying	Adjusted OR of Not Notifying [†]
Age (Mean, Median, S.D.)	26.8, 26.0, 6.4	27.0, 25.0, 8.5	0.6903	1.01 (0.96, 1.06)	
Education**					
Did not complete HS	28 (9.5%)	24 (22.9%)	0.0012	3.09 (1.56, 6.11)	3.18 (1.55, 6.51)
Completed or attending HS	267 (90.5%)	81 (77.1%)		reference	reference
Marijuana use in past 30 days					
At least once	148 (49.8%)	54 (50.9%)	0.9569	1.02 (0.58, 1.77)	
None	149 (50.2%)	52 (49.1%)		reference	
Alcohol use in past 30 days					
At least once	225 (75.8%)	80 (75.5%)	0.8054	0.92 (0.49, 1.74)	
None	72 (24.2%)	26 (24.5%)		reference	
Number of sex partners					
≥ 3	110 (37.0%)	70 (66.0%)	<0.0001	6.12 (2.79, 13.44)	5.91 (2.63, 13.25)
2	103 (34.7%)	27 (25.5%)		2.43 (1.02, 2.60)	2.39 (1.00, 5.70)
1	84 (28.3%)	9 (8.5%)		reference	reference
Symptomatic					
Discharge (with/without dysuria)	131 (44.3%)	63 (59.4%)	0.0138	2.03 (1.15, 3.56)	
No discharge (with/without dysuria)	165 (55.7%)	43 (40.6%)		reference	
Treatment Reason					
NGU Diagnosis	137 (46.1%)	66 (62.3%)	0.0089	2.11 (1.21, 3.70)	1.99 (1.12, 3.54)
CT+ Contact or CT+ Treatment	160 (53.9%)	40 (37.7%)		reference	reference

*GEE utilized to accommodate intraclass correlation, 212 Index Participants **N=400 †N=400

Table 2. Participant-Partner Dyad Relationship Characteristics by Notification of Partner (N=403)*

Characteristic	Partner Notified n=297 (%)	Notified n = 106 (%)	p-value	OR of Not Notifying	Adjusted OR of Not Notifying [†]
Main partner**					
No	138 (46.6%)	82 (80.4%)	<0.0001	4.25 (2.45, 7.37)	2.24 (1.19, 4.22)
Yes	158 (53.4%)	20 (19.6%)		reference	reference
Live with partner***					
No	248 (83.5%)	99 (96.1%)	0.0167	6.08 (1.39, 26.69)	
Yes	49 (16.5%)	4 (3.9%)		reference	
Partner believed to be infected****					
No	124 (45.6%)	60 (64.5%)	0.0071	2.10 (1.22, 3.62)	2.05 (1.14, 3.68)
Yes	148 (54.4%)	33 (35.5%)		reference	reference
Partner believed to have other partners [†]					
Yes	131 (47.1%)	63 (66.3%)	0.0037	2.13 (1.28, 3.56)	
No	147 (52.9%)	32 (33.7%)		reference	
Timing of partnership					
Not most recent partner	118 (39.7%)	75 (70.8%)	<0.0001	3.10 (2.07, 4.65)	1.67 (1.05, 2.65)
Most recent partner	179 (60.3%)	31 (29.3%)		reference	reference
Plans for future ^{††}					
Will not have sex again in future	103 (35.8%)	68 (67.3%)	<0.0001	3.14 (1.87, 5.27)	2.27 (1.26, 4.11)
Will have sex again in future	185 (64.2%)	33 (32.7%)		reference	reference
Unprotected vaginal sex with partner ^{†††}					
No	83 (28.5%)	49 (47.6%)	0.0174	1.88 (1.12, 3.16)	
Yes	208 (71.5%)	54 (52.4%)		reference	
Vaginal sex with partner ^{††††}					
No	21 (7.1%)	10 (9.7%)	0.1086	1.88 (0.87, 4.09)	
Yes	273 (92.9%)	93 (90.3%)		reference	

*GEE utilized to accommodate intraclass correlation, 212 Index Participants **N=398 ***N=400 ****N=365 †N=373 ††N=389 †††N=394 ††††N=397 †N=358

Figure 1. Casual Partnership Designation and Failure to Notify Partner

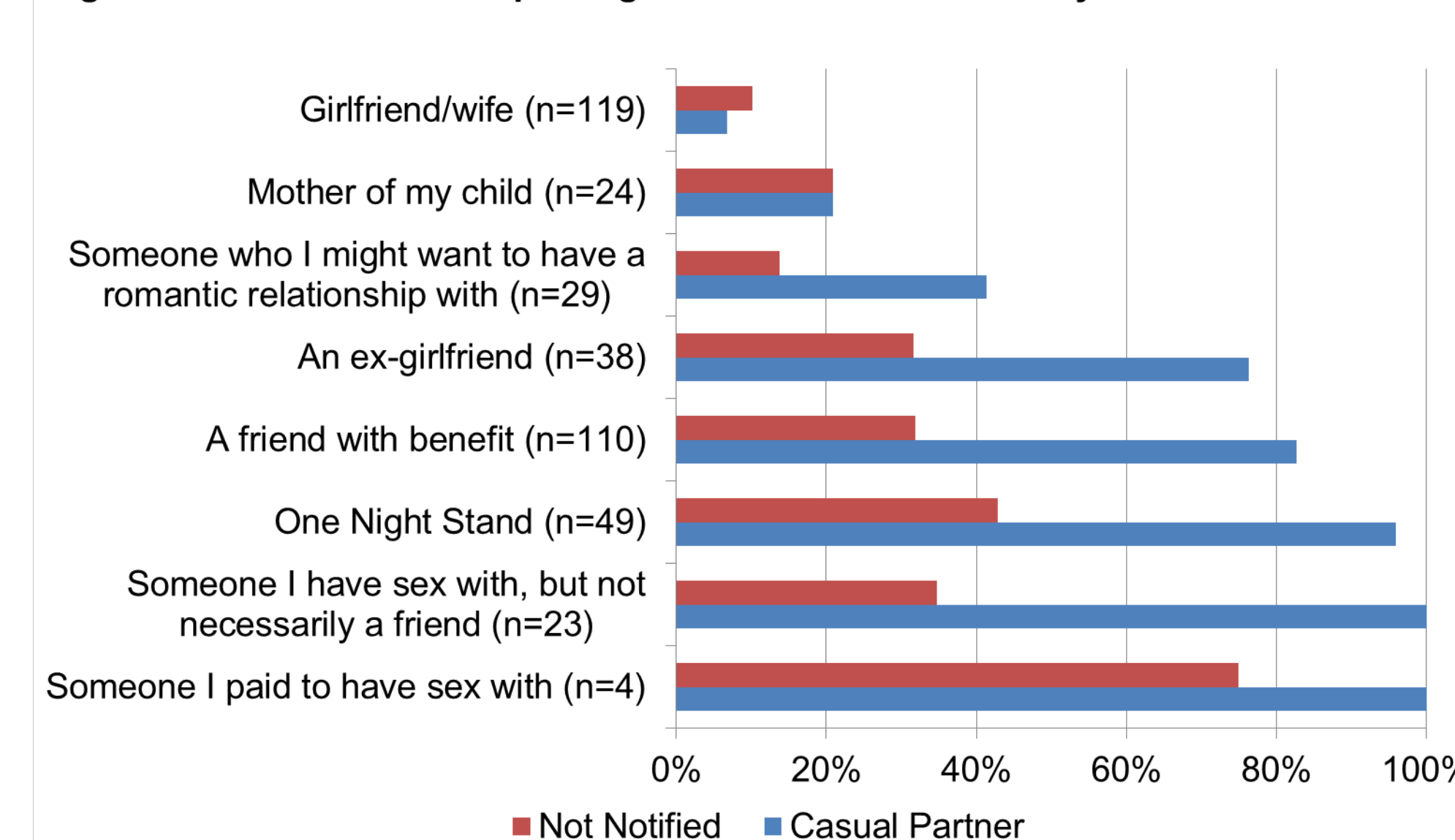


Table 3. Reasons for not notifying partner (N=106)

Reason	n	%
Don't know how to contact	46	43.4%
Am not going to have sex with again	24	22.6%
Didn't want to	14	13.2%
Was embarrassed	14	13.2%
Other		
Infection didn't come from her	7	6.6%
She already knew or was treated	4	3.8%
She didn't want to talk to me	4	3.8%
I wasn't infected when we had sex	2	1.9%
I used a condom when we had sex	2	1.9%

Results

- At baseline, 326 men were CT+ and 65.3% returned for follow-up at a median 42 days after enrollment. Those that returned for follow-up were statistically older (26.6 vs. 24.7, p-value=0.02) than those who did not return but did not differ on other demographics or risk behaviors.
- The 213 men who completed follow-up identified 444 partners at baseline. 6 male partners and 35 female partners that we did not have partner specific data for were not included in the data analysis.
- 73.3% (297/403) of female partners analyzed were notified.
- Not completing high school, having ≥3 sexual partners in the past two months and receiving NGU diagnosis remained significantly associated with failure to notify partner after adjusting for confounding variables (Table 1).
- Men are more likely to fail to notify casual partners (AOR 2.24), partners not believed to be infected (AOR 2.05), not most recent partners (AOR 1.67) and partners they do not plan on having sex with again (AOR 2.27) (Table 2).
- The most common failure to notify reason was not knowing how to contact (43.4%) followed by not going to have sex with again (22.6%) (Table 3).
- Relationship types with higher rates of casual partnership designation also had higher rates of failure to notify (Figure 1).

Discussion

- While our partner notification rate was fairly high and consistent with prior literature, the rate of successful partner treatment is unknown.
- Partner level factors including perceived infection status and plan to have sex with again are associated with partner notification.
- Identifying and utilizing these factors to better counsel patients could possibly improve patient referral and subsequent treatment which is vital to reducing further transmission, repeat infections and serious sequelae in women.

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