

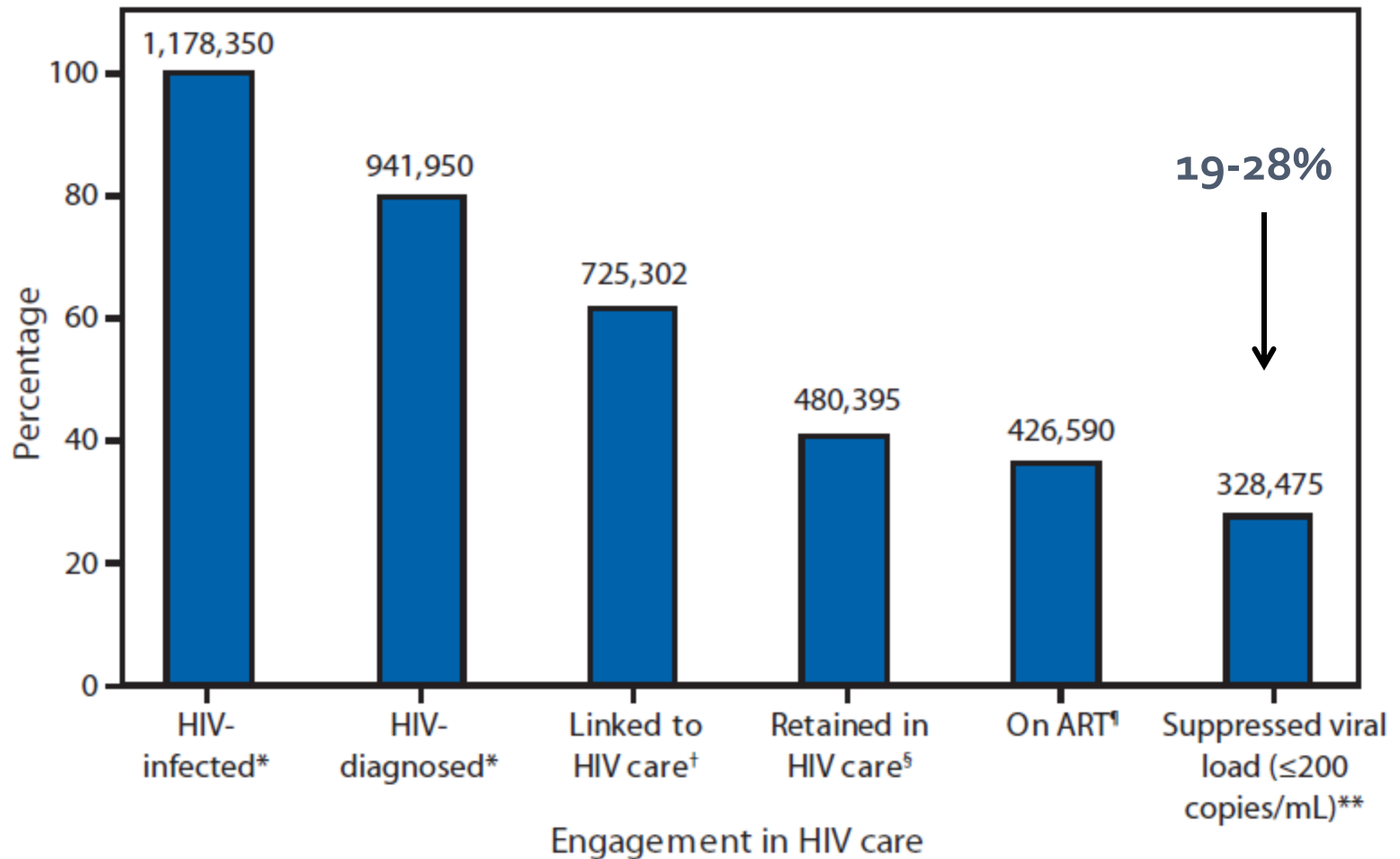
RELATIONAL ORIENTATIONS AND VIRAL SUPPRESSION AMONG SERODISCORDANT SAME-SEX MALE COUPLES

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HIV Treatment Cascade



Reference: CDC MMRW Dec 2011

Moving to Viral Suppression

- Barriers continue to persist in achieving viral suppression
 - Individual factors: age, adherence, psychiatric comorbidities, substance use
 - Structural factors: poverty, access to health care, stigma, housing/transportation



Couples Health: a brief overview

- Studies demonstrate the beneficial effects of social support from family members, including **intimate romantic partners** when facing a stressor
- However, social support is not always protective
 - Maladaptive Coping
 - Relationship Conflict
 - Communication Problems



Couples Coping: a brief overview

- For couples who face chronic stressors, coping involves a **social support transaction**
 - Dyadic coping
 - Coping Congruence
 - Collaborative Coping
 - Joint Platform
 - We-ness



Including Other In Self (IOS)

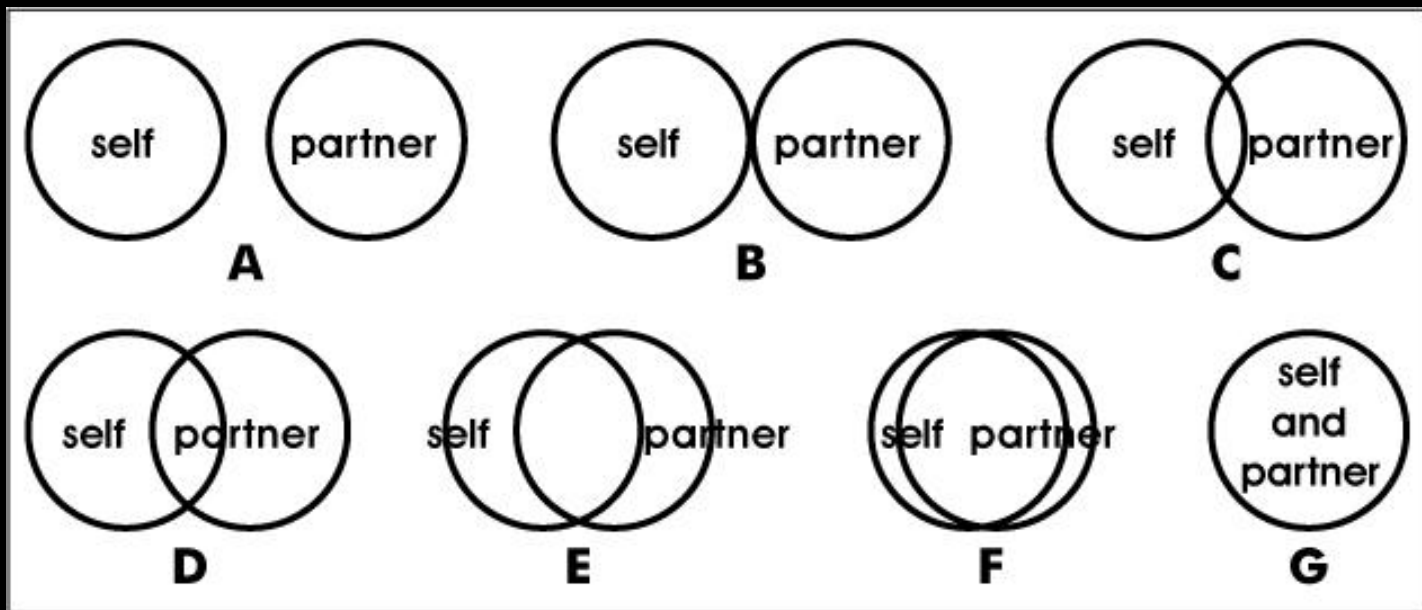


Partner

Self

Inclusion of Other in Self

Which picture best describes your current relationship with a romantic partner?



Serodiscordant same-sex male couples

- HIV serodiscordant couples may experience unique dyadic stressors, in addition to typical illness related stressors, as a result of fears around HIV transmission
- To date, existing studies suggest the serodiscordant couples face a number of social, sexual and relationship challenges
- Nonetheless, serodiscordant couples remain committed to one another

References: Remien, 1995, Nieto-Andrade, 2009, Cates, 2011, Das, 2010



Research Question

To what extent are both HIV-positive and HIV-negative partners' relational orientations associated with viral suppression, over and above existing correlates of viral suppression?

Methods: DUO Project

- DUO Project (R01NR010187, PI: Johnson)
 - Longitudinal mixed-methods study
 - Men in same-sex relationships in which one or both partners are HIV-positive and currently on HIV medications
 - Overarching goal to examine relationship factors and ART adherence support
- Inclusion criteria for data analysis:
 - HIV-serodiscordant couples (N=116 couples, 232 men)



Methods: DUO Project

- Passive Recruitment
- Separate Phone Screens
- Verified Medications and Couple Status
- Separate ACASI Interviews
 - \$50 incentive for interview
 - IRB Approval from University of California, SF
 - Exception at Hunter, CUNY



Methods: Measures

Outcome

- Viral Load (blood draws, Dichotomous)

Independent Variables

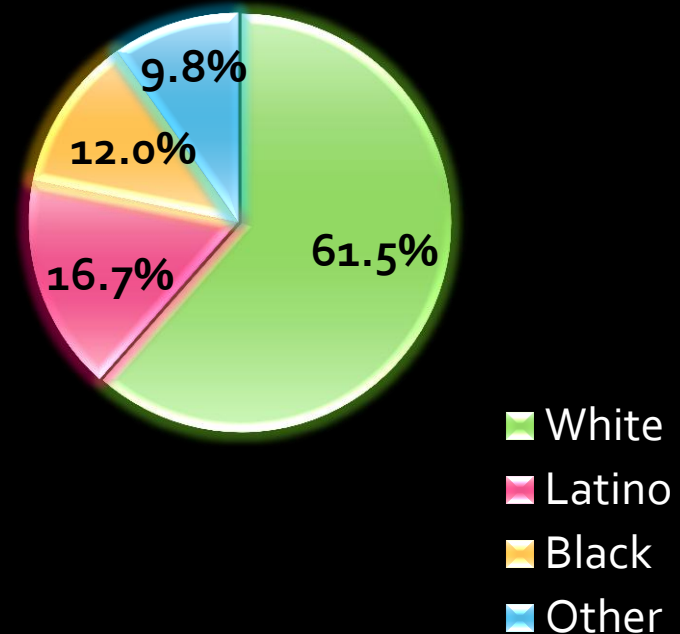
- Relational Orientations (IOS)
- Sexual Satisfaction (4 items, $\alpha = 0.84$)
- Commitment (4 items, $\alpha = 0.96$)
- Relationship Satisfaction (DAS, 6 items, $\alpha = 0.84$)

Covariates

- Age
- Adherence behavior (VAS)
- Depression (CESD at clinical cut off, Dichotomous)
- Race/Ethnicity
- Relationship length
- Length of time living with HIV

Results: Sample characteristics

- Relationship duration:
 - 7.53 ($SD = 7.80$) years
- Age:
 - 46.70 ($SD = 10.96$) years old
- Income:
 - 40.5% earned less 20K annually
- Time since diagnosis:
 - 13.54 ($SD = 8.01$) years
- Viral suppression:
 - 62.9% had an undetectable viral load



Results:

Dependence

	HIV-positive Partner	HIV-negative Partner	test statistic	κ
<i>Race</i>	n (%)	n (%)	$\chi^2(9) = 28.01$.08
Black	16 (13.8)	11 (9.5)		
White	63 (54.3)	80 (69.0)		
Latino	25 (21.6)	14 (12.1)		
Other	12 (10.3)	11 (9.5)		
<i>Income</i>			$\chi^2(1) = 10.53^*$.21*
\$20,000 or more	52 (44.8)	42 (36.0)		
< \$20 000	64 (55.2)	74 (63.8)		
<i>Depression</i>			$\chi^2(1) = 2.16$	0.10
Less than 16	61 (52.6)	74 (63.8)		
16 or greater	55 (47.4)	42 (26.2)		
	M (SD)	M (SD)	test statistic	<i>ICC</i>
Age	46.9 (9.9)	46.5 (11.9)	$t(230) = -0.27$.55***
Relational Orientation	3.7 (1.6)	3.8 (1.5)	$t(230) = .42$.24***
Sexual Satisfaction	14.7 (6.6)	15.7 (6.3)	$t(230) = -1.13$.40***
Commitment	32.2 (5.7)	32.2 (5.5)	$t(180) = 0.83$.17
Relationship satisfaction	22.5 (4.4)	21.9 (4.9)	$t(230) = 0.82$.34***

Logistic Regression

Viral Suppression

	HIV-positive partner		HIV-negative partner	
	Exp(B)	95%CI	Exp(B)	95%CI
Step 1				
Income	3.06*	1.05, 8.92	1.42	0.54, 3.71
Depression	0.36*	0.16, 0.85	0.88	0.37, 2.12
Adherence	1.05*	1.01, 1.10	—	—
Relationship Duration	1.00	0.99, 1.00	—	—
Time since Diagnosis	1.00	0.99, 1.00	—	—

Log-likelihood $\chi^2(8) = 21.03; p < 0.01$

Discussion Findings

- Social determinants of health and mental health remain important factors in achieving viral suppression
- However, relational factors are independently associated with viral suppression, such that:
 - HIV-positive partners who endorsed a higher relational orientation had over a 7-fold increase in the odds of having a suppressed viral load.
 - HIV-negative partners who endorsed a relational orientation had a 6-fold increase in the odds of their partner having a suppressed viral load.

Discussion: Limitations

1. Community sample of gay/bisexual men in SF, limited generalizability
2. Cross-sectional, no causal claims (associational only)
3. No measure of explicit relational orientations in regards to health
4. Little about the dynamics between couples



Discussion Implications

- Relational factors should be included in models designed to help individuals successfully navigate the HIV treatment cascade
- Future research and interventions need to consider relational contexts which promote optimal dyadic coping strategies to aid in achieving success at each step in the cascade



Thank You

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