Background
• High rates of new infections among gay male couples.
• Almost all gay couples have sexual agreements with their primary partner, and roughly 50% of these agreements are open and allow restrictions on outside partners.
• Though these agreements are common, there has been little examination of them (e.g., their types, their value, and how couples communicate about them) in the field. This is one of the few studies investigations into this area.

Gay Couples Study Objectives
• Identify relationship factors associated with sexual risk-taking among gay male couples.
• Explore how sexual serostatus impacts sexual risk-taking and relationship quality.

Methods
Study Design
• Recruitment: Intact couples were recruited via modified targeted sampling strategy and from venue-based recruitment in San Diego, CA, USA, between June 2005 and Feb 2007.
• Eligibility: Partners were eligible as a couple if they were in a committed relationship for at least 3 months, 18 years of age or older, fluent in English, and knew each other’s HIV serostatus.
• Survey: Each couple from the sample completed a computer-administered survey covering HIV risk behavior (with and without outside partners), relationship dynamics, and psychosocial variables.

Survey Item Development
• Qualitative interviews from a diverse sample (N=39) yielded 5 expected facets of agreement quality:
  - Agreement Value: How much couples value their agreement.
  - Agreement Commitment: How committed couples are to their agreement.
  - Agreement Efficacy: How effectively couples feel they maintain their agreement.
  - Agreement Communication: How comfortable couples feel discussing their agreement.
  - Agreement Satisfaction: How satisfied couples are with their agreement.

• The psychometric properties of the Agreement Value, Commitment, and Satisfaction subscales were studied previously and from venue-based recruitment in San Diego, CA, USA, between June 2005 and Feb 2007.
• Correlation of Subscales with Known Survey Instruments
  - Derogatis Anxiety Scale (Anxiety) .19 -.08 -.25
  - CES-D Scale (Depression) .22 -.08 -.30
  - UCLA Loneliness Scale (Loneliness) -.10 -.14 -.20
  - Social Provisions Scale (Social Provisions) .34 .26 .34
  - Trust (Rempel, Holmes & Zanna, 1985) .33 .19 .34
  - Equality (Kurdek, 1996) .33 .27 .33
  - Autonomy (Kurdek, 1996) -.05 -.003 .003
  - Commitment (Kurdek, 1996) .38 .27 .33
  - Kansas Marital Satisfaction Scale (Marital Satisfaction) .36 .26 .33
  - Dyadic Consensus Scale (Dyadic Consensus) .33 .26 .24

• The present study investigates the properties of the Agreement Efficacy and Agreement Communication items.
• Partners’ attitudes toward their agreement were measured on a scale of 0 to 4 using Likert survey items.
  - Example: “How easy it is for you to keep your current agreement?”
  - Response options: 0=Not at all, 1=A little, 2=Moderately, 3=Very much, 4=Extremely

Analysis Strategy
• Latent variable modeling using Mplus.
• Exploratory factor analysis of each subscale
• Non-parametric bootstrap
  - Global model fit statistics: CFI >=.95; SRMR <= .08
  - Alpha reliability:
    - Alpha (Importance) .80
    - Alpha (Barriers) .75

Prevention Implications
• By giving couples tools to boost and maintain agreement efficacy and elevate the perceived importance of communicating about the agreement, it might be possible to lower HIV risk with outside sexual partners.
• Understanding agreement formation, perceptions, and maintenance in gay male couples is an important tool in preventing new HIV infections.

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Results
Sample Characteristics
N=1001 men who reported having an agreement with their primary partner regarding sex with outside partners.
Race/Ethnicity
- White: 48.6%
- Black: 9.4%
- Hispanic: 11.1%
- Pacific Islander: 6.6%
- Other/Mixed: 7.1%
Length of primary relationship
- Mean: 5.3 years (range: 3-48 years)
- Median: 5 years
HIV serostatus
- 32% HIV-positive
- 68% HIV-negative
- Other: 4%
Age
- Mean: 40.6 years (range: 18-79 years)
- Median: 40 years

Limitations
• Non-probability sample
• Cross-sectional measurement

Future Directions
• Add additional items to the Communication Barriers subscale
• Replicate and extend these findings using longitudinal data

Conclusions
• Results suggest a valid and reliable scale measuring the perceived efficacy of agreements and the importance of communication about agreements regarding sex with outside partners for gay male couples. Psychometric analyses suggest that these latent factors are unique psychological constructs.
• Agreement efficacy is negatively associated with broken agreements and negatively associated with UAI with outside partners of discordant or unknown HIV status (UAI 0-1=yes, 0=no).
• Agreement communication is positively associated with broken agreements and negatively associated with UAI with outside partners of discordant or unknown HIV status (UAI 0-1=yes, 0=no).

Preventing HIV infections by understanding the role of sexual agreements: validation of the Agreement Efficacy and Communication Scale
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Agreement Efficacy: One factor extracted
Statistic Value Sample Items
TLI .98
RMSEA .08
SRMR .02
Alpha .85

Agreement Communication: Two factors extracted
Statistic Value
TTL .98
RMSEA .10
SRMR .03
Alpha .80

Importance of and barriers to discussing the agreement
Statistic Value
Sample Items
Importance
Importance is important to me to talk to my primary partner about your current agreement?
Barriers: How difficult is it to talk to your primary partner about your current agreement?

Predictive Validity
• Agreement efficacy
  - Negatively associated with broken agreements (OR=0.94; 95% CI=0.90, 0.98)
  - Negatively associated with UAI with outside partners of discordant or unknown HIV status (UAI 0-1=yes, 0=no)
• Agreement communication
  - Positively associated with broken agreements (OR=1.18; 95% CI=1.05, 1.32)
• Barriers to discussing the agreement
  - Not associated with broken agreements (OR=0.83; 95% CI=0.80, 1.05)
  - Not associated with UAI with outside partners of discordant or unknown HIV status (UAI 0-1=yes, 0=no)

Correlations of Subscales with Known Survey Instruments

Instruments used in Dyadic Research
• Several factors are moderately correlated with well-known relationship survey instruments, suggesting efficacy, communication importance, and communication barriers are unique constructs.

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1. http://dx.doi.org/10.1038/sj.mn.1100481
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