

# **Concordance and Discordance in Reports of Relationship Context, Relationship Quality, and Contraceptive Use in Young Adult Relationships**

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## **PAA 2011 Extended Abstract**

### **Overview**

In this paper, we plan to measure couples' concordance and discordance in reports describing their relationships (dating, cohabiting, and marital) and link this to measures of current contraceptive use. Specifically, using bivariate and multivariate analyses, we will examine whether concordance/discordance in structural (e.g., relationship context) and emotional (e.g., relationship quality) aspects of the relationship are associated with: 1) women's reports of contraceptive use, and 2) concordance on contraceptive use (or nonuse) in the relationship, as reported by men and women. This work will provide a better understanding about how relationship dynamics influence contraceptive use (as reported by women) and men's knowledge about partner contraceptive use.

### **Background**

Research indicates that there is strong concordance on couples' reports of sexual behaviors, such as intercourse, but that concordance decreases as they report on more subjective matters of relationships, such as discussions, attitudes, and intentions. Most work on this subject has been limited to relatively small qualitative or experimental studies, with sample sizes ranging from around 20 to 200 (for exception, see Billy, Grady, & Sill, 2009). This research finds that couples largely agree on reports of sexual behaviors such as intercourse and condom use (Harvey, Bird, Henderson, Beckman, & Huszti, 2004; Ochs & Binik, 1999; Seal, 1997; Sison, Gillespie, & Fozman, 2004). In fact, a review of studies of couples and reproductive health outcomes worldwide found that couples typically show concordant reports roughly 90 percent of the time about reproductive events such as frequency of intercourse, number of live births, and current contraceptive use (Becker, 1996). Couples report less concordance (60-70%) when reporting on attitudes toward contraceptive use (Seal, 1997), sexual decision making (Harvey et al., 2004) and pregnancy intentions (Becker, 1996).

Prior research has established that relationship context and relationship quality, as reported by one partner, are linked to sexual behaviors, including contraceptive use (Manlove, Ryan, & Franzetta, 2007; Markham et al., 2010). Additionally a few qualitative studies have linked relationship factors, such as length and type of relationship, with concordant reports of sexual behaviors (Moore, McCabe, & Brink, 2001; Witte, El-Bassel, Gilbert, Wu, & Chang, 2007). For example, one study found that married and cohabiting couples had a higher level of agreement on their levels of intimacy than those who were dating (Moore et al., 2001) and another qualitative study found that levels of relationship satisfaction were significantly associated with discordant reports of sexual behaviors (Witte et al., 2007). One study of young parents found greater relationship quality among those who reported concordant responses about risky sexual

behaviors (Koniak-Griffin et al., 2009). In more recent larger scale work, two studies found that differences in relationship power and overall power dynamics shape the choice of contraceptive use and do so differently by relationship type (Billy et al., 2009; Grady, Klepinger, Billy, & Cubbins, 2010)

More research, particularly quantitative research using large scale data sets, is needed in this field to further explore the implications of both relationship context (e.g., length, fidelity, violence) and relationship quality (e.g., satisfaction, emotional intimacy) on sexual behaviors and concordance in the reports of these behaviors. Additionally, measuring concordance across relationship domains - relationship context and relationship quality – as well as across contraceptive outcomes provides more detail about the actual nature of the relationship, above and beyond each partners' own reports.

## **Data**

This study uses data from the third wave of the National Longitudinal Study of Adolescent Health (Add Health), a nationally representative study of young adults who were initially surveyed as adolescents who were surveyed in their homes between 1994-1995 (Wave I). Wave III data collection, conducted between 2001 and 2002, includes interviews with 15,197 of the original respondents (aged 18 to 26). In addition to the interviews of original respondents, 1,507 partner interviews were conducted during the third wave of data collection. In order to be eligible to be in this sample of approximately 500 dating couples, 500 cohabiting couples, and 500 married couples (n=1,507), partners were required to be at least 18 years old and in a current heterosexual relationship with an original Add Health respondent that has lasted three or more months.

## **Sample**

Our sample was drawn from the 1,394 couples that had completed interviews for both the original respondent and the partner. We exclude cases without valid sample weights (n=81), where the original respondent report of the partner's gender and partner self-report of gender were opposite (n=3), where the couple had not had sex (n=27), and where both the original respondent and their partner do not both have valid responses on questions about contraceptive use (n=150, in most cases because they had varying reports on actually having sex) for a final sample of 1,133 couples.

## **Measures**

### Contraceptive Use Outcome Measures

We create two dependent variables measuring contraceptive use at most recent sex. At Wave III, both the original respondent and their partner were asked if they used any method of birth control when they most recently had vaginal intercourse. To measure actual contraceptive use, we use the female report of any contraceptive use at most recent sex (1 = yes, any contraceptive use). To measure discordance in overall contraceptive use, we identify couples where the respondent and partner have differing reports of any contraceptive use at most recent sex (1= disagree on use). Additional analyses will distinguish between condom use and hormonal contraceptive use.

## Predictors

*Relationship Context:* We include seven separate measures describing the nature of the sexual relationship and presence of relationship violence in our measure of relationship context. Original respondents and partners were each asked: 1) how long they knew each other before first intercourse (*1=1 day, 7=a year or more*), 2) the frequency of sex with their partner (coded as *0=less than once a week, 1=at least once a week*), 3) if they liked having vaginal intercourse with their partner (*1=like very much, 5=dislike very much*), and 4) if they believed their partner was having concurrent relationships. A fifth measure of actual fidelity was created from the reports of how many current relationships each respondent reported; discordance was determined as an inequality in the overall relationship fidelity (e.g., one partner had concurrent partners where the other reported none). A sixth measure of relationship violence measures partner and respondent reports physical abuse (*threaten with violence, push or shove, throw something that could hurt; slap, hit, kick; or cause an injury because of a fight*) that they either perpetrated or were victims to over the past year. Finally, sexual insistence measures partner and respondent reports of either insisting on or making the other person have sex when they did not want to or having their partner insist on or make them have sex when they did not want to.

*Relationship Quality:* To capture relationship quality we include measures of relationship dynamics, relationship satisfaction, and emotional intimacy. Original respondents and their partners were asked about dynamics in their daily interaction with one another. Respondents reported the frequency with which they laughed at the partner's jokes when they aren't funny, how often they notice their partner's mood changes, and the frequency which they are first to apologize after a disagreement or argument (*0=never/hardly ever, 4=most of the time/every time*). Relationship satisfaction is measured by a question of overall satisfaction with the relationship (*1=very satisfied, 5=very dissatisfied*) and who gets the better deal in the relationship considering what the respondent and partner put in versus what they get out of it (*1=R is getting a much better deal, 5=P is getting a much better deal*). Emotional intimacy is measured by how much the respondent loves the partner (*0=a lot, 3=not at all*), how much love is perceived from the partner, how committed the respondent is to the relationship (*1=completely, 5=not at all*), how close the respondent feels to their partner, and how likely they feel that the relationship will be permanent (*1=almost certain, 5=almost no chance*). Descriptive statistics on these measures, for men and women, are shown in Table 1.

We measure concordance and discordance in the perception of relationship context and quality reported by each partner in the couple. For each measure, discordance is determined by mismatched responses from the original respondent and the partner. For items where there was discordance in the reports, couples were given a value of 1 and where their responses matched they were given the value of 0. For measures where either the original respondent or partner had missing values, the discordance measure was coded as missing for the couple.

In future analyses, we will explore using scales or indices (as these measures are clearly designed to be used) to reduce the individual number of relationship context and relationship quality measures. Additionally, we will explore combining male and female reports on these measures in ways that will identify couples in which partners: 1) both have a high value, 2) disagree, and 3)

both have a low value, across each of our constructs. We will also explore potential relationship differentials, highlighting which partner reported higher vs. lower relationship quality, because these could reflect differences in relationship power that may have implications for contraceptive use (Grady et al., 2010).

### Controls

For the multivariate analyses, we will control for individual and couple characteristics. We will control for the age and race/ethnicity of each partner. Additionally, we will control for couple characteristics, including relationship type, partner age difference, partner race difference, length of relationship, and co-residential status.

### **Analytic Methods**

To address our research questions, this paper will include bivariate and multivariate analyses using the couple as the unit of analysis. First, we evaluate the association between each of our primary independent variables of interest – relationship context and quality for men, women, and concordance on these measures – and actual contraceptive use and concordance in reports of contraceptive use. Chi-square tests and t-test analyses will be used to identify significant differences. In future analyses, we will use multivariate models (e.g., logistic regression) to model the association between our independent variables of interest and contraceptive use, net of controls for individual and couple characteristics. We will test for differences in these associations across relationship types – i.e., married, cohabiting, dating.

### **Preliminary Findings**

Table 2 presents bivariate associations between our independent variables of interest and measures of contraceptive use. Discordance in various measures of relationship context and relationship quality is associated with actual contraceptive use at the most recent sexual encounter. For example, 65 percent of couples who reported similar instances of violence in the past year used contraception at their most recent sexual encounter while only 54 percent of those who had discordant reports of relationship violence used any form of contraception. A similar association was found in discordant reports of sexual insistence in the relationship and perception of partner fidelity. In the domain of relationship quality, perception of who gets the better deal in the relationship appeared to be most associated with contraceptive use. Sixty-five percent of couples with concordant reports on whom they believed was getting a better deal in the relationship used contraceptive compared to 57 percent of couples who had discordant responses.

Couples who report discordance in relationship context and quality are also more likely to have discordant reports of contraceptive use. Twenty-one percent of couples who had discordant reports of sexual enjoyment also reported discordance in contraceptive use compared with 13 percent who were concordant on sexual enjoyment. Similarly, 21 percent of couples who had discordant reports of couple closeness also reported discordance in contraceptive use compared with 15 percent who were concordant on closeness. Men who appear to have little knowledge of

their partner's feelings about the relationship also seem to be less knowledgeable about their partner's contraceptive use.

## Next Steps

By PAA, we plan to have all of the above bivariate and multivariate analyses complete. These analyses will provide us with a better understanding both of the dynamics within a relationship and how these dynamics are linked to knowledge of and actual use of contraceptives in the relationship.

## References

- Becker, S. (1996). Couples and reproductive health: A review of couple studies. *Studies in Family Planning*, 27(6), 291-306.
- Billy, J. O. G., Grady, W. R., & Sill, M. E. (2009). Sexual risk-taking among adult dating couples in the United States. *Perspectives on Sexual and Reproductive Health*, 41(2), 74-83.
- Grady, W. R., Klepinger, D. H., Billy, J. O. G., & Cubbins, L. A. (2010). The role of relationship power in couple decisions about contraception in the US. *Journal of Biosocial Science*, 42, 307-323.
- Harvey, S. M., Bird, S. T., Henderson, J. T., Beckman, L. J., & Huszti, H. C. (2004). He said, she said: Concordance between sexual partners. *Sexually Transmitted Disease*, 31(3), 185-191.
- Koniak-Griffin, D., Huang, R., Lesser, J., González-Figueroa, E., Takayanagi, S., & Cumberland, W. G. (2009). Young parents' relationship characteristics, shared sexual behaviors, perception of partner risks, and dyadic influences. *Journal of Sex Research*, 46(5), 483-493.
- Manlove, J., Ryan, S., & Franzetta, K. (2007). Contraceptive use patterns across teens' sexual relationships: The role of relationships, partners, and sexual histories. *Demography*, 44(3), 603-621.
- Markham, C. M., Lormand, D., Gloppen, K. M., Peskin, M. F., Flores, B., Low, B., et al. (2010). Connectedness as a predictor of sexual and reproductive health outcomes for youth. *Journal of Adolescent Health*, 46(3S), S23-41.

- Moore, K. A., McCabe, M. P., & Brink, R. B. (2001). Are married couples happier in their relationships than cohabiting couples?: Intimacy and relationship factors. *Sexual and Relationship Therapy, 16*(1), 35-46.
- Ochs, E. P. & Binik, Y. M. (1999). The use of couple data to determine the reliability of self-reported sexual behavior. *Journal of Sex Research, 36*(4), 374-384.
- Seal, D. W. (1997). Interpartner concordance of self-reported sexual behavior among college dating couples. *Journal of Sex Research, 34*(1), 39-55.
- Sison, J. D., Gillespie, B., & Fozman, B. (2004). Consistency of self-reported sexual behavior and condom use among current sex partners. *Sexually Transmitted Diseases, 31*(5), 278-282.
- Witte, S., El-Bassel, N., Gilbert, L., Wu, E., & Chang, M. (2007). Predictors of discordant reports of sexual and HIV/sexually transmitted infection risk behaviors among heterosexual couples. *Sexually Transmitted Diseases, 34*, 302.

Table 1: Male and female reports of relationship context, quality and contraceptive use at most recent encounter

	Female reports	Male reports
<b><u>Contraceptive Use Outcomes</u></b>		
Contraceptive Use	62%	61%
<b><u>Relationship Context</u></b>		
<u>Sexual Relationship</u>		
Length of time before sex		
one day or less	4%	5%
two to seven days	6%	7%
one or two weeks	7%	10%
two to four weeks	12%	14%
one to five months	31%	27%
six months to a year	13%	13%
a year or more	27%	24%
Sex at least once a week	81%	80%
Sexual enjoyment		
like very much	84%	91%
live somewhat	15%	7%
neither like or dislike	1%	1%
dislike somewhat	1%	0%
dislike very much	0%	1%
Believes p has concurrent partners	15%	13%
<u>Relationship Violence/Discordance</u>		
Physical violence in prior year	35%	26%
Sexual insistence in the prior year	8%	8%
<b><u>Relationship Quality</u></b>		
<u>Relationship Dynamics</u>		
Laugh at all p's jokes		
never/hardly ever	18%	17%
less than half the time	21%	15%
about half the time	20%	22%
more than half the time	18%	23%
most of the time/every time	23%	23%
Notice p's mood changes		
never/hardly ever	5%	6%
less than half the time	7%	5%
about half the time	14%	18%
more than half the time	29%	27%
most of the time/every time	46%	43%
First to apologize to p		
never/hardly ever	10%	7%
less than half the time	20%	13%
about half the time	46%	37%
more than half the time	17%	24%
most of the time/every time	7%	19%
<u>Relationship Satisfaction</u>		
Overall relationship dissatisfaction		
very satisfied	78%	75%
somewhat satisfied	17%	19%
neither satisfied or dissatisfied	2%	4%
somewhat dissatisfied	3%	1%
very dissatisfied	1%	1%
Who gets better deal		
r is getting a much better deal than p	4%	8%
r is getting a somewhat better deal	4%	9%
both r and p are getting an equally good/bad deal	76%	74%
p is getting a somewhat better deal than r	11%	7%
p is getting a much better deal than r	5%	3%
<u>Emotional Intimacy</u>		
Love for p		
a lot	92%	88%
somewhat	6%	9%
a little	1%	2%
not at all	1%	2%
Perceived love from p		
a lot	91%	90%
somewhat	7%	7%
a little	2%	1%
not at all	1%	2%
Commitment to relationship		
completely committed	84%	75%
very committed	11%	16%
moderately committed	3%	4%
somewhat committed	1%	3%
not at all committed	1%	2%
Closeness in relationship		
1 not at all close	3%	3%
2	2%	3%
3	3%	4%
4	7%	7%
5	9%	8%
6	18%	16%
7 very close	57%	58%
Permanence of relationship		
almost certain	69%	63%
a good chance	18%	21%
a 50-50 chance	8%	10%
some chance, but probably not	2%	4%
almost no chance	3%	2%

Table 2: Concordance and discordance in reports of relationship context and quality and its association  
with both contraceptive use and the discordance in reports of contraceptive use at most recent sex

	Women's Report of Contraceptive Use	Discordance in Reports of Contraceptive Use	
<b><u>Relationship Context</u></b>			
<b><u>Sexual Relationship</u></b>			
Length of time before first sex			
Concordance	61%	16%	
Discordance	63%	21%	
Frequency of sex			
Concordance	61%	17%	
Discordance	66%	16%	
Sexual enjoyment			*
Concordance	50%	13%	
Discordance	53%	21%	
Perceived fidelity		***	
Concordance	66%	18%	
Discordance	48%	20%	
<b><u>Relationship Violence Discordance</u></b>			
Reports of physical violence		**	
Concordance	65%	18%	
Discordance	54%	18%	
Reports of sexual insistence		*	
Concordance	64%	17%	
Discordance	52%	21%	
<b><u>Relationship Quality</u></b>			
<b><u>Relationship Dynamics</u></b>			
Laughs at all p's jokes			
Concordance	56%	16%	
Discordance	64%	19%	
Noticing p's mood changes		*	
Concordance	68%	14%	
Discordance	58%	20%	
Reports of who apologizes first			
Concordance	64%	19%	
Discordance	61%	17%	
<b><u>Relationship Satisfaction</u></b>			
Relationship satisfaction			
Concordance	63%	17%	
Discordance	59%	20%	
Reports of who gets the better deal		*	
Concordance	65%	18%	
Discordance	57%	18%	
<b><u>Emotional Intimacy</u></b>			
Love for p			*
Concordance	61%	17%	
Discordance	65%	25%	
Perception of p's love			
Concordance	63%	17%	
Discordance	56%	23%	
Commitment in relationship			
Concordance	64%	17%	
Discordance	58%	20%	
Closeness in relationship			*
Concordance	59%	15%	
Discordance	65%	21%	
Permanence of relationship			
Concordance	62%	18%	
Discordance	63%	20%	