Parenting Behavior Among Men With Disputed Paternity: Can Genetic Tests Make A Difference?

David Bishai[1]
Nan Astone[1]
Laura Argys[2]

[1] Johns Hopkins University
[2]University of Colorado

Paper to be Presented at PAA
March 26, 2005

Short Abstract [108 WORDS]

We interviewed 245 individuals who were having paternity tests conducted pursuant to a state determination of a child support order. The interviews were conducted from Sept 2003 to August 2004 and focused on the relationship between the mother and the man in question as well as the level of contact between the man and the child. We also obtained permission to obtain results of the genetic tests from the research subject. The survey indicated that women expressed higher degrees of confidence than the men that the tests would prove the man's paternity. Men who eventually tested negative for paternity had equal baseline levels of contact with the child.

Introduction

Paternity establishment has become an increasingly important policy objective of state governments. The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) provided incentives for states to increase paternity establishments for children of unmarried mothers. Paternity establishment facilitates the collection of child support and can reduce public contributions towards the support for children of single parents.

Roughly 280,000 DNA based paternity tests are performed in the U.S. annually (American Association of Blood Banks 2000). Most of these tests are performed at the request of the mother or state child support agency (IV-D office) in order to facilitate the establishment of a child support order. Over the last two decades, state IV-D offices have begun to require mothers to assist in paternity establishment as a condition of welfare receipt. However, not all unmarried mothers seek government assistance in obtaining child support, and only a fraction of women filing for child support obtain genetic testing. In 2000, there were 7,571,000 female-headed households with children (U.S. Bureaus of the Census 2000). On an annual basis Offices of Child Support Enforcement (OCSE) established 1,555,581 paternities in 2000. It was able to establish nearly half of these (688, 510) through voluntary in hospital acknowledgement programs (Office of Child Support Enforcement 2001).

State financial interests in paternity establishment are undeniable, and in the most mechanical sense, paternity establishment works. Prior research has shown that states with more successful paternity establishment programs increase payment rates. Because state policy initiatives may be endogenous (Case 1998), recent studies have used

instruments to predict those policies such as lagged measures of female representation in state legislatures (Miller and Garfinkel 1999). Miller and Garfinkel (1999) showed that even controlling for endogeneity, policies to permit paternity establishment until age 18, wider use of genetic tests, and higher OCSE spending rates increased the likelihood that child support would be awarded. These same policies were also shown to increase the paternity establishment rate in data from the Curent Population Survey (CPS). Argys and Peters (2001) later used reduced form models to show that state policies were associated with paternity establishment and child support awards in the National Longitudinal Survey of Youth (NLSY) 97. Furthermore they showed that states with higher rates of paternity establishment have higher collections of child support revenue (Argys, Peters, and Waldman 2001).

Very little is known about the population seeking genetic verification of paternity, or whether characteristics of the mother, child or alleged father are correlated with the test results. What we know about children for whom paternity needs to be established comes primarily from the demography of unmarried mothers(Wu and Wolfe 2001). There have been no published studies correlating paternity test outcomes with the background of the clients. One prior study of a national sample of paternity tests in the U.S. documented an overall 72% rate of confirmation of paternity which had almost no systematic variation with the age, race, and ethnic background of triad members (Bishai, Astone, Argys, Filidoro, and Gutendorf 2004).

Raising children requires investments of both money and time. A child support order is a state mandate for fathers to provide money—the state cannot compel men to spend time with their children. The money collected by child support does appear to be

helpful to children. There is evidence that child educational outcomes improve (Graham, Beller, and Hernandez 1994) as do scores on cognitive tests (Argys, Peters, Brooks-Gunn, and Smith 1998) when child support awards are granted. What remains unclear is whether paternity establishment and child support leads fathers to spend more time with their children.

The few strands of evidence about the effects of child support on men's allocation of time towards children are encouraging. Child support awards increase the influence of fathers over children and may increase the amount of contact between fathers and children (Seltzer, McLanahan, and Hanson 1998). Seltzer and her colleagues (1998) could not demonstrate increased conflict in the lives of children receiving child support payments, a potential unintended consequence of policies that promote child support. The complex relationship between child support enforcement and child contact requires proper econometric techniques to help establish the exogeneity of child support. Thus Argys and Peters (2001) instrumented paternity establishment with state child support policies and demonstrated that paternity increased father-child contact within the past year (Argys, Peters, and Waldman 2001). Using state policy instruments to predict child support awards and payments in the Survey of Income and Program Participation (SIPP) for 1992, 1993, and 1996 Peters and others (2005) found that having child support award or receiving a child support award were associated with higher father child contact.

As valuable as these results are, they are subject to the limitations of the instrumental variables technique. Concern with weak instruments (Hahn and Hausman 2003) or a concern that family friendly state policies are endogenous with father's behaviors could limit the validity of econometric estimates. However, if one could

achieve similar results on the connection between child support and father-child contact using an alternative approach in a quasi-experimental setting then both internal and external validity are enhanced. The identification of causal pathways in the connection between child support payment and time spent with children requires proper attention to the mechanism by which they are linked. At least seven different theories can explain the linkage.

Selection. Men who are able to make child support payments are more likely to have jobs and a sense of responsibility. Those who spontaneously acknowledged paternity self-selected a voluntary obligation to this child. They are less likely to be incarcerated and less likely to have second families and spouses that discourage both payment and involvement.

Reverse causation. Men who have more contact with their children may develop greater altruistic concern for the children due to this exposure, and may therefore be willing to pay.

Confounding. Good working relationships and/or romantic feelings between the man and the mother may lead men to see the children more and to make payments. In this case, the payments would be more likely to be side payments than state-sanctioned payments.

Biological Causation. Men who have a child support order after a genetic test are 99.99% certain that the children are biologically theirs. While the importance of biological paternity for the behavior of human fathers has never been established, biologists invoke uncertainty of paternity as the primary reason why most fathers in the animal kingdom do so little to provide resources for their offspring. While the ability of

men to adopt and love unrelated children shows that biology is not destiny, yet the paternity information disclosed in the genetic test may somehow increase their concern for a child that was previously believed to be unrelated or only probably related.

The Production of Child Quality. Many economic theories of parenthood discus the centrality of "child quality" as a desirable commodity that is produced by parents (Becker and Lewis 1973). Child quality is conceptualized as school performance, health, behavior, and other measures of human function. Some have interpreted the strange juxtaposition of the words "commodity", "production", and "children", to mistakenly exaggerate dehumanizing aspects of the theory (Blake 1968), but the basic content of the theory holds that if parents love their children they will do everything they can to help them grow and thrive. The word "production" indicates that parents will use multiple effective inputs (e.g. both money and time) to assist children. Thus if we observe a man supplying both his money and his time to a child, the theory of child quality production would infer that this man loves the child and wants them to thrive, and is using every means at his disposal to achieve this.

Supervision of Assets. According to Weiss and Willis, non-resident parents who make payments towards children have an interest in supervising the final allocation of those funds to ensure that they are actually spent on the children (Weiss and Willis 1985). A child support payment therefore causes a man to increase his visitation in order to oversee his investment. As an extension to Willis, if there are productive complementarities between money and parental time in the production of child quality, a father who has already invested money in a child (because of a child support order), may

find that the money makes the productivity of additional time expenditure that much greater and therefore more attractive.

Income Effects Del Boca and Ribero (2001) suggest an alternative form of economic causation. In their model the non-custodial parent and the custodial parent each values time spent with the child and bargains in zero-sum fashion with the other parent to attain more time with the child. Women with lower incomes are willing to offer more generous visitation schedules to the non-custodial men in exchange for side payments. State sanctions which force the men to transfer more income to the mothers will allow the women to offer fewer visits to maintain a given income. This model omits the possibility that both the mother and the father might recognize benefits to the child from more visits with the non-custodial parents, but offers a rationale for why child support orders could potentially lower father's contact with their children (Del Boca and Ribero 2001).

Our objective in this paper is to identify predictors of father-child contact among non-custodial men who have been named in a claim for child support prior to the resolution of the suit. Our focus is on older children, whose fathers have not spontaneously acknowledged paternity. By describing the characteristics of the parties in this case we can begin to assess the plausibility of the various mechanisms discussed above. . With access to the genetic test results, we possess a superb predictor of whether a child support order will be issued for a particular man. We can answer whether the genetic test results represent exogenous information to the parties involved. If the observable features of the couple offer a good prediction of what the test results will be, then the couples' behavior may anticipate the child support order. However if genetic

test information is largely unpredictable, the test itself provides a randomizer and will permit identification of the causal effects of child support orders plus paternity certainty jointly on men's allocation of time to children.

Table 1. Summary of Various Theories Connecting Child Support Enforcement to Father-Child Contact. Table lists key predictions of each theory, and how one could test each theory. Asterisks indicate tests that are carried out in this paper.

Theory	Predicts	How theory could be tested	Tested Here
Selection	Men who will later receive a child support order are already less likely/more likely to have contact with their children prior to the order.	Obtain data on men's behavior prior to a child support order.	**Y**
Reverse Causation	Exogenous increases in father child contact lead to more child support payments.	Find exogenous determinants of father child contact, assess effects on payment.	N
Confounding	Quality of relationship with mother is correlated with payment and child contact	Measure relationship quality assess correlation.	**Y**
Biological Causation	Men's contact with their children should be correlated with their subjective probability of paternity	Subjective probability of paternity should correlate with father child contact.	**Y**
Child Quality Production	Men care about their children and see allocations of their money and time as complementary ways to improve child outcomes.	Find correlation between markers of bonding between the man and the child.	Y
Supervision Effects	Lower romantic intentions and trust of mother, predict higher amounts of father-child contact	Measure degree of trust between man and woman, assess correlation to father-child contact.	N
Income Effects	Less father-child contact for children of higher income women.	Assess correlation of father-child contact and mother's non-child support income.	**Y**

Data and Methods

Mothers and legal guardians who wish to obtain a child support order in Maryland petition the OCSE and an administrative hearing is scheduled to include both parties in the dispute. An administrative hearing can end in one of three outcomes: 1) The man voluntarily acknowledges paternity and signs an affidavit of paternity; 2) The man contests paternity and refuses to submit to genetic testing. Men are informed that if they take this option the case will go before a judge and that they will be responsible for substantial costs of litigation. 3) The man contests paternity, but agrees to genetic testing. Men are informed that if they take this option and are excluded as fathers they will not be responsible for the laboratory costs. On the other hand if their paternity is confirmed by the test, they will pay laboratory costs of roughly $90, court costs will be eliminated, and a child support order will be issued. Roughly 50% of child support orders in Maryland are placed on men who voluntarily acknowledged paternity. (A large number of non-resident fathers acknowledge paternity at the time of the child's birth.) The remainder are obtained after genetic testing. Cases where the man chooses to go to court and refuses genetic testing are extremely rare.

In two of the four counties we studied, administrative hearings are only held on days when a laboratory technician is on the premises to collect mouth swabs for genetic samples from the mother, child, and man in question. In the other two counties, the parties are scheduled to return to the OCSE facility at a later date for genetic testing.

Our sample is limited to only those cases of contested paternity that are being resolved through genetic testing. We obtained permission from the Maryland Office of Child Support Enforcement (OCSE) to enroll research volunteers from OCSE facilities in

Ann Arundel, Baltimore, Montgomery, and Prince George's County from October 24, 2003 until August 12, 2004. We only enrolled non-incarcerated subjects over age 18 on the day of their genetic test. Legal guardians, mothers, and men were all eligible regardless of the participation status of the other party in their triad. Children were not interviewed. Men received slightly different surveys than mothers and guardians. On each enrollment day leaflets explaining the study were available in the waiting room. Immediately after specimen collection, the lab technicians introduced each client tested to the research interviewer who invited clients to participate and obtained informed consent from each enrollee. Participants were asked to sign a form authorizing release of genetic test results to the researchers and were asked whether researchers could maintain follow up contact by telephone. All volunteers were offered a $25 gift card at Target stores upon completion of the survey.

To describe the sample we produced univariate tabulations for the sample of men, the sample of women, and the sample where both man and woman were surveyed. . Multivariate logistic regression estimated odds ratios of predictors of whether the man had any contact with the child in the last 30 days and whether the man's paternity was confirmed.

Because the men's sample and the women's sample had slightly different questions and potentially different responses to questions they are analyzed separately to assess gender based effects in the responses. ANOVA tests were used to identify bivariate associations across categories. For multivariate logistic analysis only the men's sample was included, because only the men were asked details of parenting and romantic intentions. Groups of variables suggested by theory were entered blockwise for

multivariate analysis in the categories of Romance, Involvement intentions, Bonding, and Child variables. An atheoretical model identified by backward stepwise regression was also estimated to achieve parsimony. Because of the potential for collinearity among variables in any single theoretical group, theories are best assessed using the F-statistic testing joint significance for all variables in a group.

Results

A total of 412 eligible individuals attended the 4 sites on days when our research staff were present. Our staff were able to invite 395 (96%) of these to participate in the study. There were 17 who could not be offered enrollment prior to their departure because research staff were occupied with multiple ongoing interviews. Of the 395 invited participants, 250 (63%) agreed to participate and 245 completed the survey. Enrollment rates were 71% in Ann Arundel County, 70% in Baltimore County, 31% in Montgomery County, and 55% in Prince George's County. Enrollment rates by race/ethnicity were 63% black, 28% Hispanic, and 69% white. Women (76%) were more likely to enroll than men (50%).

Table 1 presents descriptive statistics for the pooled sample, and subsamples of men, women, and couples. Men and women differed significantly in their subjective probability that the genetic test would confirm paternity with 14.5% of men and 70.7% of women rating this is as almost certain ($p<0.01$). There were no significant differences in rates of fathers seeing the child in the last 30 days by sex of respondent overall, although women in couples reported higher rates of contact (57.4%) than women whose partners did not enroll (39.1%) ($p<0.05$). Rates of "grandparental" contact were similar in all subsamples. Women in the study (81.7%) were less likely to have completed a high

school diploma than the men (88.9%). When asked whether the putative father does anything to help the mother, more men (47.2%) than women (23%) answered yes.

Table 2 displays paternity confirmation rates in the various subsamples. Confirmation rates overall were 76.5%, which is very similar to the confirmation rate of 72% in a nationally representative sample (Bishai et al. 2004). The final row of Table 2 shows that confirmation rates were lower for male respondents (57.1%) than females (92.2%) ($p<0.01$) and even lower for couples (37.5%). Other than the sex of the respondent, few variables were significantly predictive of a paternity confirmation in the pooled sample or sub-samples. Although there was a significantly lower paternity confirmation rate for younger children, parental age, education, income and race were not correlated with paternity confirmation rates. Subjective predictions of confirmation were weakly correlated with the test outcome, and only for women. Women who stated that there was "no chance" that the man would be confirmed as the father had a 70% paternity confirmation rate which was significantly different ($p<0.01$) from the 94% confirmation rate of all other women. What men predicted the test results would be had no correlation with paternity confirmation as can be seen in Figure 1. Although the confirmation rates are not shown in the table, the child's sex, a prior marriage between the couple, whether the child had the man's last name, whether the man had attended the child's delivery, and whether the man said the child resembled him all had no significant correlation with the rate of paternity confirmation in bivariate tabulations.

Of the 98 men who reported contact with the child in the last 30 days, 25 (25.5%) had their paternity excluded by the test. Of 72 paternal "grandparents" who saw the child in the last 30 days, 19 (26.4%) would later have their biological ties to the child

disconfirmed by the genetic test. There was evidence that many of the 25 men who would later have their paternity disconfirmed had spent some quality time with the child. In 50% of these cases the men reported reading stories, playing, visiting relatives, or hugging the child. In 16% of the disconfirmed cases the man was co-residing with the mother and child. 37% of the children in these cases are above the age of 2. On the other hand, of the 132 men who reported no contact with the child in the last 30 days, 104 (79%) were later confirmed as biological fathers. Follow up data are being collected to establish whether rates of father child contact increase for these men.

Table 3 shows other bivariate tabulations of correlates of contact between the men and the children in the disputed paternity cases. Rates of contact were higher for infants, but showed no significant difference by father's age, mother's age, race, education, or income. If anything, women with higher incomes permitted somewhat higher rates of contact, though this was not statistically significant. Although it is not shown in the table higher travel time was significantly correlated with lower rates of child contact reported by 56% of men who lived within 15 minutes of the child, but only by 37% of men who lived greater than 15 minutes from the child.

Most (71%) of the men expressed a willingness to be more involved with the children. But only 53% of those who wanted to be more involved had seen the children in the last 30 days. Rates of contact for these willing men were significantly higher when the men stated that they believed the women wanted them involved, they were intermediate when they believed their own involvement was unwanted. Rates of contact were lowest when men stated they "Didn't know" whether the women wanted them involved.

Multivariate predictions of the rate of paternity confirmation are shown in Table 5. Because there was evidence from Table 2, that men whose partners also enrolled had much lower rates paternity confirmation, a dummy variable for partner enrollment was included in all models to control for sample selection bias. Table 5 demonstrates that indicators of father-child bonding such as whether the child has the man's last name may be good predictors of paternity confirmation in multivariate specifications. Unfortunately for the men, paternity confirmation appears to have negligible correlation with both their intention to be more involved with the child, and with the duration and intensity of romantic involvement with the woman. Echoing the results of Table 4b, men who stated that they did not know if the mother wanted them more involved with the child had lower odds of paternity confirmation than men who were certain that the mother wanted them involved. The F-test for the full model rejects the joint significance of the full set of predictor variables, but a parsimonious model identified by stepwise regression offers successful prediction. The area under the receiver operator curves based on the full logistic model and the stepwise model were 0.89 and 0.82 respectively, suggesting that men do possess some information at baseline that can enable improved prediction of the test results. Yet as seen in Figure 1, their stated predictions of the genetic test result had no correlation with rates of paternity confirmation.

Table 6 shows that the separate blocks reflecting aspects of the romantic relationship, parental intentions towards the child, and the pre-existing bond were associated with the odds of contact between the men and the focal child. The test that all variables in the full model were significant was rejected, but with only 72 complete observations and 19 degrees of freedom this test has low power. Table 7 shows that

contact between the men's parents and the children is also mediated by the same romance, intention, and bonding variables that affected the men's own contact. Men's income was not a significant determinant of contact between men and the children. Separate analysis showed that mother's income also had no correlation to rates of male contact with the children in bivariate and multivariate models. These results were robust to multiple methods of classifying the income categories.

Discussion

To our knowledge this is the very first study of men immediately prior to the issuance of child support orders. Because paternity was confirmed for 75% of our sample, but poorly correlated with their subjective predictions we can safely predict that child support orders were imminent yet unexpected for many men confirmed as fathers. Because rates of baseline father child contact had no correlation to the genetic test results, we can reject the selection theory that child support orders befall men who are already in greater contact with the children. Our data are consistent with a theory that the quality of the relationship between the mother and the putative father are an important mediator of a man's contact with the child. We found evidence that mothers exercise a gatekeeper effect: men who perceived that the mother desired their involvement were more likely to be involved. Surprisingly men who said they "didn't know" if the mother wanted them involved had lower odds of involvement than men who knew the mother did not want them involved. Men who stated they "did not know" whether the woman wanted them involved were significantly more likely to have paternity disconfirmed. Because complete couples account for a small proportion of the sample, we only have data from 22 women whose partners reported that they did not know her intentions, and we are

unable to infer whether these women actually have a systematically lower or higher desire for greater involvement of the men. Controlling for concordance of men and women's intentions regarding male involvement, a worse relationship between them significantly lowered the odds of male contact with the child. However as shown in Table 3, most of these effects were driven by extremely low rates of contact in men who never talk to the women, and not by exceptionally high rates of contact among men who say they are currently romantically involved with the women.

Controlling for romantic intentions, men who state they had promised to give the woman money had higher rates of contact with the children which is consistent with two of our theories: supervision and production of child quality. The biological theory garnered meager support. We found no correlation between men's subjective statements of paternity certainty and rates of father child contact. And the genetic test results (which were not known to respondents at the time of the survey) had no correlation with rates of the men's contact. Yet before dismissing the theory of biological causation, we note significant and puzzling effects of (as yet unknown) paternity and rates of grandparental contact. Follow-up data on the men's behavior after the test results are known (and child support orders are issued) will offer another opportunity to assess the effects of perceived biological relatedness on male behavior. Untangling the joint effects of mandated payments and genetic information is likely to be difficult.

In summary the scorecard on theories explaining links between child contact and financial support for children is as follows:

Theory	**Outcome**
Selection	Rejected
Reverse Causation	Untested
Confounding on Relationship	Confirmed
Biological Causation	Weak confirmation based on grandparental behavior
Child quality production	Not rejected, but evidence consistent with supervision
Supervision Effects	Not rejected, but evidence consistent with child quality
Income Effects	Rejected

Our results have important implications for the assessment of child support policy. We found that roughly 25% of the non-resident men and their parents in our sample who are actively engaged with children will learn through genetic testing that they are not biologically related to the child. Whether these individuals will sever their connections as a consequence of the genetic test information is still unknown. We found that 37% of the children in these cases are above the age of 2, so that there is the potential for psychological harm. There have been no systematic evaluations of the impact of paternity disconfirmation on the children, men, and women involved. On the other hand, there is a large contingent of uninvolved men who will receive child support orders on the basis of the genetic tests. Future research will determine the impact of paternity confirmation on the parenting behavior of previously uninvolved men and paternal kin.

Table 1. Percent Distribution of variables in the analysis.					
	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Focal Child's Age					
Younger than 1 year	27.3	32.3	23.0	41.2	29.4
1 to 3 years	37.2	32.3	40.0	31.4	45.1
4 or older	35.5	35.4	34.8	27.5	25.5
n	231	99	132	51	
Father's Age					
15-19	5.2	5.6	4.8	5.7	5.7
20-24	24.6	27.1	22.4	28.3	30.2
25-29	17.7	21.5	14.4	20.8	18.9
30-34	21.6	17.8	24.8	17.0	17.0
35-39	16.4	11.2	20.8	13.2	15.1
40-44	14.7	16.8	12.8	15.1	13.2
n	232	107	125	53	
Custody of Child					
Mother	89.3	86.9	91.1	89.3	92.9
Other	10.7	13.1	8.9	10.7	7.1
n	242	107	135	56	
Perceived Odds of a Positive Match					
50-50 or less	39.5	69.1	15.0	66.1	19.6
A pretty good chance	15.2	16.4	14.3	23.2	25.0
An almost certain chance	45.3	14.5	70.7	10.7	55.4
n	243	110	133	56	
Did Putative Father see Focal Child in last 30 days					
No	58.5	55.6	60.9	46.3	42.6
Yes	41.5	44.4	39.1	53.7	57.4
n	241	108	133	54	
Did Putative Paternal Grandparents see Focal Child in last 30 days					
No	70.2	68.5	71.5	64.0	66.0
Yes	29.8	31.5	28.5	36.0	34.0
n	238	108	130	50	
Ethnicity					
African American	65.0	67.3	61.7	70.9	65.5
Other	35.0	30.0	38.3	29.1	34.5
Household Income					
Less than $10,000	24.7	16.7	25.5	13.0	27.8
$10,000 to 29,999	27.6	28.7	21.6	27.8	18.5

Table 1. Percent Distribution of variables in the analysis.					
	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
$30, 000 or more	28.9	32.4	29.4	37.0	27.8
Do not Know	18.8	22.2	23.5	22.2	25.9
n	239	108	130	54	
Education					
High school diploma or more	84.9	88.9	81.7	92.6	79.6
Less than high school	15.1	11.1	18.3	7.4	20.4
n	239	108	131	54	
Does Putative Father do Anything to Help Mother?					
Nothing	65.8	52.8	77.0	47.1	62.7
Something	34.2	47.2	23.0	52.9	37.3
n	234	108	126	51	
Number of Children					
None	9.4	19.6	0	25.5	0
One	33.2	31.8	34.5	29.1	42.0
Two	28.3	25.2	31.0	21.8	28.0
Three or more	29.1	23.4	34.5	23.6	30.0
n	223	107	116	55	
Mother's Age					
15-19			8.4		14.5
20-24			31.3		34.5
25-29			24.4		21.8
30-34			19.8		14.5
35-39			9.9		10.9
40-44			6.1		3.6
n			131	55	
How Hard is Being a Mother?					
Very hard			23.8		26.4
Hard			26.9		32.1
Not that hard			27.7		22.6
Not hard at all			21.5		18.9
n			130	53	
Number of Sexual Partners the month Focal Child Was Conceived					
One			57.8		52.6
More than one			27.4		35.1
Refused			14.8		12.3
n			135	57	

Table 1. Percent Distribution of variables in the analysis.					
	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Relationship quality					
Romantically involved and steady		7.6		12.7	
On again, Off again		12.3		10.9	
Just Friends		17.9		21.8	
Hardly Ever Talk		25.5		29.1	
Never Talk		36.8		25.4	
		106		55	

Table 2. Percent with a positive match between focal child and Putative father, by selected variables and samples.					
	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Did Putative Father see Focal Child in last 30 days					
No	78.8	58.9	93.4	36.0	36.4
Yes	74.5	55.3	92.2	40.0	34.4
Focal Child's Age	**	*			
Younger than 1 year	66.7	41.9	93.1	33.3	41.2
1 to 3 years	84.7	68.8	94.3	37.5	29.2
4 or older	75.6	58.8	88.6	40.0	50.0
Father's Age					
15-19	70.0	50.0	100.0	0	0
20-24	72.2	48.1	96.3	26.7	23.5
25-29	70.7	56.5	88.9	41.7	50.0
30-34	72.9	47.1	87.1	33.3	33.3
35-39	86.1	83.3	87.5	71.4	66.7
40-44	81.3	64.7	100.0	37.5	42.9
Custody of Child					
Mother	77.1	58.0	91.5	40.8	40.4
Other	73.1	50.0	100.0	0	0
Perceived Odds of a Positive Match	***		**		
50-50 or less	60.4	55.6	78.9	38.9	27.3
A pretty good chance	69.4	47.1	89.5	30.8	30.8
An almost certain chance	92.4	75.0	95.5	42.9	41.9
Did Putative Paternal Grandparents see Focal Child in last 30 days					
No	77.4	58.6	92.1	37.5	41.2
Yes	75.0	54.5	94.3	36.4	23.5
Ethnicity					
African American	77.7	62.0	92.0	45.0	40.5
Other	75.3	48.4	92.2	20.0	27.8
Household Income					
Less than $10,000	84.2	61.1	94.9	42.9	60.0
$10,000 to 29,999	74.6	58.6	88.2	40.0	30.0
$30, 000 or more	75.8	58.8	93.8	47.6	33.3
Education					
High school diploma or more	74.4	55.9	91.2	37.3	40.9
	*				

Table 2. Percent with a positive match between focal child and Putative father, by selected variables and samples.					
	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Nothing	79.6	58.2	92.4	36.0	38.7
Something	69.2	57.1	89.7	40.0	40.0
Number of Children	***				
None	42.9	42.9	NA	28.6	NA
One	73.1	54.8	88.9	26.7	38.1
Two	77.4	59.3	91.4	41.7	50.0
Three or more	85.5	73.9	92.3	61.5	35.7
Mother's Age					
15-19			90.9		25.0
20-24			92.3		27.8
25-29			90.6		50.0
30-34			88.0		50.0
35-39			100.0		66.7
40-44			100.0		66.7
How Hard is Being a Mother?					
Very hard			86.7		42.9
Hard			88.6		41.2
Not that hard			100.0		18.2
Not hard at all			96.2		20.0
Number of Sexual Partners the month Focal Child Was Conceived					
One			91.8		43.3
More than one			88.9		31.6
Refused			100.0		28.6
Relationship quality					
Romantically involved and steady		50.0			42.9
On again, Off again		69.2			50.0
Just Friends		47.4			16.7
Hardly Ever Talk		63.0			37.5
Never Talk		53.8			42.9
Total	76.5	57.1	92.2		37.5
Number of Cases	245	110	135	57	

*p<0.10 **p<0.05 ***p<0.01 within category by ANOVA

Table 3. Percent of focal children who putative father saw once in the last 30 days, by selected variables and samples.

	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Focal Child's Age	*				
Younger than 1 year	54.0	56.3	51.6	57.1	55.6
1 to 3 years	36.9	38.7	35.8	50.0	50.0
4 or older	37.5	44.1	32.6	57.1	53.8
Father's Age					
15-19	33.3	50.0	16.7	66.7	66.7
20-24	54.4	62.1	46.4	73.3	64.7
25-29	42.5	39.1	47.1	50.0	60.0
30-34	26.5	31.6	23.3	40.0	44.4
35-39	42.1	50.0	38.5	57.1	55.6
40-44	46.9	31.3	62.5	42.9	33.3
Custody of Child					
Mother	41.3	43.5	39.7	60.0	54.7
Other	40.0	46.2	33.3	52.0	33.3
Perceived Odds of a Positive Match	**	***		**	
50-50 or less	36.2	34.7	42.1	41.7	54.5
A pretty good chance	62.2	72.2	52.6	84.6	42.9
An almost certain chance	38.5	60.0	35.1	57.1	60.0
Did Putative Paternal Grandparents see Focal Child in last 30 days	***	***	***	***	***
No	25.1	24.3	25.8	33.3	44.1
Yes	78.3	90.6	67.6	85.7	64.7
Ethnicity					
African American	42.5	43.1	42.0	51.3	50.0
Other	39.3	45.5	35.3	56.3	63.2
Household Income					
Less than $10,000	34.5	41.2	31.7	42.9	40.0
$10,000 to 29,999	34.8	38.7	31.4	50.0	60.0
$30, 000 or more	49.3	52.9	45.5	60.0	66.7
Education					
High school diploma or more	42.5	45.7	39.6	54.0	61.4
Less than high school	41.7	41.7	41.7	60.0	30.0

Table 3. Percent of focal children who putative father saw once in the last 30 days, by selected variables and samples.

	Sample				
	Pooled	*Men*	*Women*	*Couples*	
Variables				*Men*	*Women*
Does Putative Father do Anything to Help Mother?	***	***	***	*	
Nothing	26.0	24.6	26.8	40.0	43.8
Something	72.7	67.3	82.1	63.3	73.7
Number of Children					
None	45.0	45.0		57.1	
One	37.0	35.3	38.5	43.8	66.7
Two	45.2	44.4	45.7	58.3	64.3
Three or more	40.6	50.0	35.0	50.0	33.3
Mother's Age					
15-19			54.5		62.5
20-24			42.5		57.9
25-29			32.3		50.0
30-34			30.8		50.0
35-39			53.8		50.0
40-44			50.0		0
How Hard is Being a Mother?					
Very hard			48.4		71.4
Hard			35.3		35.3
Not that hard			33.3		54.5
Not hard at all			35.7		60.0
Number of Sexual Partners the month Focal Child Conceived					
One			36.8		63.3
More than one			45.9		50.0
Refused			35.0		16.7
Relationship quality		***			***
Romantically involved and steady		62.5			71.4
On again, Off again		61.5			66.6
Just Friends		77.8			75
Hardly Ever Talk		51.8			50
Never Talk		15.4			21.4
Total	41.5	44.4	39.1		53.6
Number of Cases	245	110	135	57	

*p<0.10 **p<0.05 ***p<0.01 within category by ANOVA

Table 4A Men's statements of own parenting intentions vs. beliefs about women's acceptance of these intentions

	Man's belief about whether mother wants him involved			
Man wants to be involved in raising children	Yes	No	Don't Know	**Total**
Yes	40	7	30	**77**
No	1	0	7	**8**
Don't Know	7	1	16	**24**
Total	**48**	**8**	**53**	**109**

Table 4B Proportion of Men Who Have Seen Child in Last 30 Days by Parenting Intentions

	Man's belief about whether mother wants him involved			
Man wants to be involved in raising children	Yes	No	Don't Know	
Yes	73%	43%	28%	***
No	100%	No Obs	0%	
Don't Know	43%	0%	25%	

***p<0.01 by ANOVA

Table 5 Multivariate logistic regressions showing odds ratios of predictors of paternity confirmation in sample of men recruited in Maryland child supported clinics on the day genetic specimens were collected. Dependent variable is genetic confirmation of paternity. (Z-tests shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%)

		All	Romance	Intentions	Bonding	Child	Stepwise
Selection	Both partners enrolled	0.032 [3.57]***	0.124 [4.11]***	0.095 [4.49]***	0.184 [3.82]***	0.148 [3.97]***	0.031 [3.99]***
Romance	Years known partner	0.85 [1.15]	0.93 [1.46]				
	Relationship intensity: 1=steady, 5=never talk	1.287 [0.68]	0.821 [1.05]				
	Why relationship faltered? Distance (Ref:money/other)	0.308 [0.89]	0.495 [0.78]				0.076 [2.15]**
	Drug problem	2.008 [0.34]	1.742 [0.53]				
	Relationship reasons	2.406 [1.02]	1.21 [0.37]				
	Ever married	2.736 [0.73]	1.746 [0.60]				
Parental Involvement	Man wants involvement Yes (Ref: No)	1.902 [0.41]		0.916 [0.09]			
	Don't Know	4.058 [0.86]		1.491 [0.40]			
	Promised mother financial support	7.933 [1.97]**		2.429 [1.69]*			3.99 [1.92]*
	Mom wants involvement Don't Know (Ref: Yes)	0.166 [1.96]**		0.484 [1.34]			0.201 [2.11]**
	No	0.649 [0.31]		1.185 [0.19]			
Bonding	Present at birth	0.284 [1.19]			1.183 [0.30]		0.256 [1.48]
	Child looks like me	2.452 [0.80]			1.387 [0.51]		
	Child has man's last name	16.184 [2.66]***			1.385 [0.60]		14.983 [2.83]***
Child	Child is male	3.068 [1.52]				1.863 [1.35]	3.215 [1.80]*
	Age of child in years	1.202 [1.15]				0.99 [0.18]	
Income	Man's household income	0.999 [0.01]					
Observations		79	100	105	102	97	79
Pseudo R2		0.41	0.17	0.19	0.13	0.16	0.37
F-test for joint significance of all variables		p=0.42					
F-test for joint significance of romance variables		p=0.43	p=0.59				
F-test for joint significance of parental intentions		p=0.15		p=0.26			
F-test for joint significance of bonding variables		**p=0.053**			p=0.72		
F-test for joint significance of child variables		p=0.14				p=0.39	
F-test for joint significance of stepwise variables		**p=0.024**					**p=0.0037**

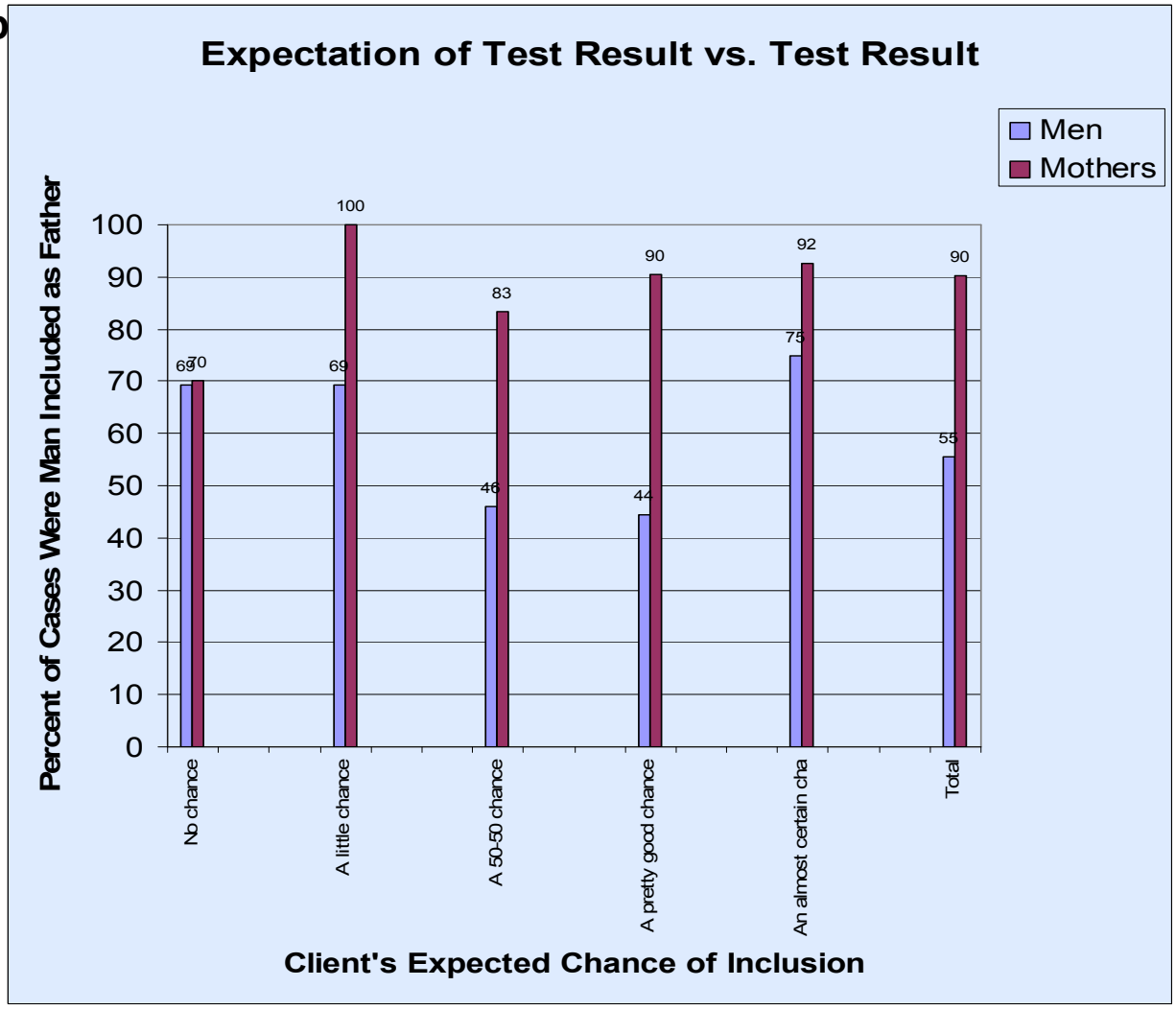
Table 6 Multivariate logistic regressions showing odds ratios of predictors of whether MAN saw child in last 30 days. Sample of men recruited in Maryland child supported clinics on the day genetic specimens were collected.
(Z-tests shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%)

		All	Romance	Intentions	Bonding	Child	Stepwise
Selection	Both partners enrolled	2.7 [1.09]	1.445 [0.79]	1.762 [1.17]	2.352 [1.96]*	1.778 [1.34]	
Romance	Years known partner	1.131 [0.99]	1.031 [0.64]				
	Relationship intensity: 1=steady, 5=never talk	0.827 [0.52]	0.503 [3.55]***				
	Why relationship faltered? Distance (Ref: money/other)	2.638 [0.66]	2.302 [0.89]				
	Drug problem	0.938 [0.05]	0.968 [0.03]				
	Relationship reasons	2.974 [1.29]	2.239 [1.52]				
	Ever married	0.366 [0.71]	1.093 [0.09]				
Parental involvement	Man wants involvement Yes (Ref: No or Don't Know)	1.79 [0.69]		1.813 [1.02]			
	Promised mother financial support	1.445 [0.40]		2.609 [1.90]*			3.671 [2.21]**
	Mom wants involvement Don't Know (Ref: Yes)	0.299 [1.49]		0.199 [3.21]***			0.328 [1.92]*
	No	0.168 [1.30]		0.354 [1.22]			
Bonding	Present at birth	0.317 [1.18]			2.053 [1.26]		
	Child looks like me	2.672 [1.06]			3.899 [2.08]**		
	Child has man's last name	2.307 [0.84]			0.871 [0.25]		
Child	Child is male	1.54 [0.63]				0.869 [0.33]	
	Age of child in years	0.907 [0.65]				0.953 [0.96]	
Income	Man's household income	1.14 [1.03]					1.178 [1.56]
Travel time	Travel time from dad to kid (1=Same house-5= 8+ hrs)	0.55 [1.42]					0.634 [1.45]
Genetics	Man later confirmed as biological father	2.127 [0.85]					
Observations		72	99	103	100	95	72
Pseudo R2		0.29	0.14	0.21	0.09	0.03	0.2
F-test for joint significance of all variables		p=0.63					
F-test for joint significance of romance variables		p=0.80	**p=0.032**				
F-test for joint significance of parental intentions		p=0.43		**p=0.003**			
F-test for joint significance of bonding variables		p=0.54			**p=0.042**		
F-test for joint significance of child variables		p=0.68				p=0.60	
F-test for joint significance of stepwise variables		p=0.26					**p=0.0066**

Table 7. Multivariate logistic regressions showing odds ratios of predictors of whether man's PARENTS saw child in last 30 days. Sample is men recruited in Maryland child supported clinics on the day genetic specimens were collected.
(Z-tests shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%)

		All	Romance	Intentions	Bonding	Child	Stepwise
Selection	Both partners enrolled	8.236 [1.61]	2.257 [1.34]	2.358 [1.67]*	3.194 [2.27]**	1.875 [1.39]	7.711 [1.77]*
Romance	Years known partner	1.133 [0.88]	1.023 [0.37]				
	Relationship intensity: 1=steady, 5=never talk	0.373 [1.78]*	0.276 [4.41]***				0.339 [2.51]**
	Why relationship faltered? Distance (Ref: money/other)	43.495 [1.95]*	7.856 [1.71]*				13.939 [1.78]*
	Drug problem	12.574 [1.29]	3.588 [0.96]				
	Relationship reasons	59.77 [2.61]***	18.184 [3.34]***				21.978 [2.78]***
	Ever married	0.034 [1.81]*	0.141 [1.45]				0.091 [1.68]*
Parental Involvement	Man wants involvement (Ref: No) Yes	1.073 [0.03]		0.545 [0.60]			
	Don't Know	0.114 [0.83]		0.114 [1.76]*			0.123 [1.56]
	Promised mother financial support	1.97 [0.51]		3.444 [2.10]**			
	Mom wants involvement Don't Know (Ref: Yes)	0.648 [0.33]		0.228 [2.60]***			
	No	4.78 [0.80]		0.902 [0.11]			5.812 [1.38]
Bonding	Present at birth	4.616 [1.18]			4.468 [2.46]**		3.748 [1.67]*
	Child looks like me	0.781 [0.22]			3.29 [1.91]*		
	Child has man's last name	1.185 [0.12]			0.979 [0.04]		
Child	Child is male	0.368 [1.03]				0.49 [1.58]	
	Age of child in years	0.825 [1.01]				0.952 [0.90]	
Income	Man's household income	0.934 [0.36]					
Travel time	Travel time from dad to kid (1=Same house-5= 8+ hrs)	0.229 [2.22]**					0.327 [2.06]**
Genetics	Man later confirmed as biological father	12.209 [1.76]*					10.025 [2.03]**
Observations		71	98	103	100	95	71
Pseudo R2		0.51	0.33	0.24	0.17	0.05	0.46
F-test for joint significance of all variables		p=0.83					
F-test for joint significance of romance variables		p=0.22	**p=0.0023**				
F-test for joint significance of parental intentions		p=0.65		**p=0.0036**			
F-test for joint significance of bonding variables		p=0.43			**p=0.002**		
F-test for joint significance of child variables		p=0.41				p=0.22	
F-test for joint significance of stepwise variables		p=0.41					p=0.11

Figure 1**. Correlation between client's expectation of p**



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