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## Family Structure and Fathers' Well-Being: Trajectories of Self-Rated and Mental Health\*

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### Abstract

The association between marital status and health among men has been well-documented, but few studies track health trajectories following family structure transitions among unmarried fathers. Using the *Fragile Families and Child Well-Being Study* this paper examines trajectories of paternal self-rated and mental health, focusing on transitions into and out of residential relationships with the child's biological mother or a new partner during a five-year post-birth period (N = 4,331). Continuously married fathers report higher time-specific observed self-rated health and fewer mental health problems than continuously single fathers, controlling for underlying health trajectories. The disparity, however, does not increase over time, providing little support for the marital resource model during these years. Static group differences suggest that resources fathers carry with them into unions may buffer them from the negative effects of union dissolution. The implications of these findings for cohabitation, as well as selection and causation arguments are also discussed.

### Keywords

family structure; marriage; health; fathers

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Decades of both cross-sectional and longitudinal research report a positive association between marriage and health and a negative association between marital dissolution and health (see Waite 1995). Although the distinction between parents and non-parents is rarely an explicit focus, these associations appear to hold for both groups. And while prevalence rates of alternate relationship forms, such as cohabitation, have increased in recent decades, marriage is still recognized as the primary social institution responsible for family well-being and is thus the focus of most existing literature.

In conjunction with the increase in cohabiting relationships, the United States has seen a dramatic increase in non-marital child bearing. Roughly eleven percent of all births in 1970 occurred to non-married couples (Ventura and Bachrach 2000) but by 2003 that figure had increased to 35 (Martin et al. 2005). Although a great deal is known about consequences of nonmarital childbearing for maternal and child wellbeing (Wu and Wolfe 2001), less is known about how unmarried fathers fare after the birth of a child. Likewise, existing research has not fully explored the long-term connection between family structure changes and paternal health.

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### Notes

The association between family structure and paternal health, especially among unmarried fathers, is important for a number of reasons. First, unmarried fathers are disproportionately drawn from minority and less educated populations (Teachman, Tedrow, and Crowder 2000), making this issue relevant to sociologists concerned with health disparities. Second, unmarried fathers are likely to experience multiple family structure changes, including cohabitation, over the course of their adult lives (Carlson, McLanahan, and England 2004) making this issue relevant to sociologists interested in stress and mental health. And finally, understanding the impact of family structure change on paternal health may illuminate possible health benefits that may arise from the healthy marriage and fatherhood initiatives recently funded by Congress (see Future of Children 2005).

This paper uses data from the *Fragile Families and Child Wellbeing Study* (FFCWS) to examine the links between family structure change and paternal self-rated and mental health among fathers, with an emphasis on men who experience a nonmarital birth. The analyses use latent growth curve models to compare the health of different groups of unmarried fathers to those of married fathers and to test several hypotheses derived from the marital resource model about the long-term costs and benefits associated with different types of family structure transitions. If the resource model can accurately describe the association between family structure change and paternal well-being it should be quite apparent in a sample where stress, especially changes in marital status, occurs at a higher rate than in the general population. In addition, given the stressful events and general strains that unmarried fathers may experience, mental and physical health are likely to be quite variable both within and between individuals, an important requirement for growth models. In sum, the Fragile Families data provides an excellent context in which to examine the utility of the marital resource model for disadvantaged, unmarried fathers, a group that has received much recent attention from policy makers interested in healthy marriages and family relations.

## Background

### Marriage and Health

The health benefits associated with marriage include higher self-rated health (Williams and Umberson 2004), reduced mortality rates (Rogers 1995), lower rates of chronic illness and physical disability (Pienta, Hayward, and Jenkins 2000), and better mental health (Marks and Lambert 1998). As a social institution, marriage also promotes reciprocal caretaking (Gove, Hughes, and Style 1983). Partners attend to one another's health and well-being by monitoring health behaviors (Umberson 1987) and providing intimate, emotional support (Peters and Liefbroer 1997), in part, because each partner expects to individually gain from a healthy union.

It is not clear whether the benefits associated with marriage extend to cohabiting unions (Manning and Smock 2002). Generally, cohabiting couples fall somewhere between married couples and single individuals in terms of well-being, especially mental health (DeKlyen et al. 2006). Evidence suggests that cohabiting couples report higher levels of depression (Brown 2000) and alcohol problems (Horwitz and White 1998) than their married counterparts. Related research suggests that transitions into marriage are also more protective of health than transitions into cohabitation (Willitts, Benzeval, and Stansfeld 2004). Horwitz and White (1998) find significant, albeit smaller, mental health benefits among couples who entered a cohabiting union, whereas both Brown 2000 and Kim and McKenry (2002) find no improvement in psychological well-being among couples once they begin cohabiting. Together, these studies suggest that cohabitation, although similar to marriage, is not as salubrious, perhaps reflecting instability characteristic of cohabiting relationships (Brown 2000).

Just as marriage and, to a lesser degree, cohabitation appear to provide adults with a number of physical and mental health benefits, exiting such unions have negative consequences for health and well-being (Hemström 1996). Divorce has been linked to a higher risk of mortality (Zick and Smith 1991; Lillard and Waite 1995), poor health behaviors (Lee et al. 2005), increased mental health problems (Simon and Marcussen 1999), and increased poverty (Holden and Smock 1991; McManus and DiPrete 2001). Somewhat surprisingly, little research has investigated the health consequences of union dissolution among cohabiting couples. Some research suggests that exits from marriage and cohabitation result in similar decreases in functional and self-rated health but not in mental health (Wu and Hart 2002). Avellar and Smock (2005) report that, for men and women, exits from cohabiting relationships result in a similar reduction of economic resources as exits from marriages, although the decline is larger for previously married individuals.

### Men, Marriage, and Health

Well-being among both men and women is thought to be positively affected by marriage and negatively affected by divorce or separation yet the manifestation of, and mechanisms leading to, these costs and benefits are often *not* the same for men and women (Simon 2002; Waite 1995; Williams 2003). For men, the most implicated mechanism in this research is monitoring of health behaviors (Umberson 1987; 1992). Men are also likely to list a spouse as the main source of social support (Phillipson 1997), suggesting that they may derive additional psychological benefits from marriage. In general, men receive more instrumental support from relationships, such as the aforementioned regulation of health behaviors (Umberson et al. 1996). Union dissolution, then, may result in declines in mental and physical health via the loss of social monitoring, emotional support, and promotion of health behaviors provided by intimate partners.

### Family Structure Change and Trajectories of Well-Being

The marital resource model suggests that the benefits associated with marriage accumulate the longer an individual remains in that status (see Ross and Wu 1996; Lillard and Waite 1995). This approach focuses on the long-term, cumulative association between a particular marital status that results from a family structure change. Individuals who divorce face the risk of accumulating resource deficits over time. Role theory argues that certain roles are associated with chronic strain, consistent with the accumulation argument (Pearlin 1999). Moreover, the strains associated with divorce may spill over into other life domains (i.e., financial, work, social relationships), exacerbating the negative effect of union dissolution on well-being. The result, then, is a growing disparity between the continuously married and individuals who divorce, with the greatest disparity in well-being occurring between the continuously married and the continuously single. Again it is not clear whether the “marital” resource model also applies to cohabitation.

Given that previous research has pointed to social support and behavior monitoring as important mechanisms through which marriage may influence men's health one might expect the long-term impact of “being unmarried” to be particularly salient as duration in that status increases over the life course. In contrast, men who enter presidential relationships may experience improved health given access to and accumulation of the resources provided by their status. Thus men who enter coresidential unions may experience positive health trajectories, just as their continuously married counterparts. Similarly, their health trajectories should improve relative to men who either remain continuously single or exit coresidential relationships.

Lillard and Waite 1995, using a nationally representative sample of men and women, find a large, *immediate* decline in mortality rates among men after marriage, which they attribute

to instant changes in risky healthy behaviors once a man marries. In support of the marital resource model, mortality hazards continued to drop as marital duration increased, which the authors suggest was due to the accumulation of benefits provided by marriage, especially those that fell under the rubric of financial. When men divorced or were widowed, the benefits they experienced from being married were erased and mortality rates returned to pre-marriage levels. This study highlights the marital resource model's primary emphasis on long-term associations between family structure and health. However, the model can also be used to make predictions about time-specific differences in health status because they, too, can reflect the accumulation of resources. At any point in time, married fathers are expected to have better health than cohabiting or unmarried fathers, including those who have divorced or separated. Unfortunately, cross-sectional comparisons of this kind make it extremely difficult to differentiate whether family structure *causes* health gradients or whether health status *selects* men into different family structures.

## Selection

Underlying the literature on marriage and health is the assumption that marital status and changes in status are themselves causally related to health (Booth and Amato 1991; Johnson 1991). An alternate view posits that the association observed between health and marital status is the result of selection (Mastekaasa 1992, Wade and Pevalin 2004). According to this argument, healthier individuals are more likely to marry and less healthy individuals are more likely to divorce (Goldman 1993), leading to a spurious correlation between marital status and health. One typical means of minimizing potential selection bias is to include a number of controls for pre-existing health status and other individual traits that are likely correlated with union transitions as well as subsequent health status (see Horwitz, White, and Raskin-White 1996). Yet this approach does not take account of selection on unmeasured variables. A recent review of the literature by Wood and colleagues (2007) supports the contention that changes in marital status and health are likely causally related; however, they also caution that, because few studies have been methodologically rigorous enough to address selection effects, ultimately the evidence in favor of causation may be overly optimistic. Given that selection and causation are not mutually exclusive it is likely that both are at work (Waldron, Hughes, and Brooks 1996).

## The Current Study

The current research extends existing union transition literature in a number of important ways. First, it maximizes the use of longitudinal data to examine by focusing on *trajectories* of self-rated health and mental health problems among both unmarried and married fathers (see Lamb, Lee and Demaris 2003; Marcussen 2005). Second, the paper investigates whether the established benefits of being married and entering into marriage, as well as the costs associated with being unmarried and marital dissolution, apply to entrances and exits from other types of unions, most notably cohabitation. And third, it expands the definition of mental health problems to include behaviors that are disproportionately reported by men, such as drug and alcohol use.

In particular, this paper attempts to address the validity of the marital resource model by focusing on one broad research question: How are family structure stability and change associated with fathers' self-rated health and mental health problems net of their overall, underlying health trajectories? Analyses compare fathers who remain continuously married, cohabiting, or single to fathers who experience transitions into or out of coresidential relationships over a five-year period. A number of specific hypotheses can be drawn from this larger research question.

Hypothesis 1: Continuously single fathers will have lower self-rated health and more mental health problems than continuously married fathers. This gap in well-being will widen over time, with continuously married fathers being healthier.

Hypothesis 2: Fathers who enter a marriage will have higher self-rated health and fewer mental health problems than the continuously single. This gap in well-being will widen over time, with continuously single fathers being less healthy.

Hypothesis 3: For fathers who enter a marriage, the gap in self-rated health and mental health problems between themselves and the continuously married will fade as fathers who enter a marriage accrue time in a marital union.

Hypothesis 4: For fathers who exit a marriage, the gap in self-rated health and mental health problems between themselves and the continuously married, will increase as fathers who exit a marriage accrue time in singlehood status.

Because it is not clear whether cohabitation among fathers conveys the same benefits as marriage the paper also tests whether the marital resource model can be extended to cohabiting unions by making the same comparisons listed above (i.e., continuously cohabiting vs. continuously single; enter cohabitation vs. continuously single; enter cohabitation vs. continuously cohabiting; exit cohabitation vs. continuously cohabiting).

The analyses presented here also attempt to address possible selection effects in four ways. First, they include a number of controls for observed paternal characteristics that may be correlated with both family structure and health. Second, they utilize a selection correction variable aimed at assessing fathers' odds of experiencing a non-marital birth; this correction is intended to check the robustness of the findings. Third, the association between family structure and fathers' health is estimated controlling for each father's underlying health trajectory. That is, the analysis estimates this association net of any growth, or decay, a father may experience in health, regardless of its cause. And fourth, with the exception of fathers who transition early in the observation period, it is possible to examine health status prior to an exit from (or entrance into) a coresidential relationship. If selection is at work, prior to the transition, those fathers who eventually exit unions would report worse health than continuously married fathers whereas fathers who enter unions would report better health than continuously single fathers.

## Method

### Data

The study uses data from the *Fragile Families and Child Wellbeing Study* (FFCWS) (Reichman et al. 2001). The FFCWS is based on a stratified, multi-stage, probability sample of 4,898 children, including 3,712 children born to unmarried parents in large U.S. cities. Baseline interviews of both parents were conducted within 48-hours of the child's birth (September 1998 to September 2000). Although 4,898 mothers are interviewed at baseline, only 3,830 fathers have comparable interviews. Subsequent interviews were conducted via telephone when the focal child was one-, three-, and five-years of age. Attrition is as follows: at one-year 3,124 fathers are interviewed, at three-year 2,638 fathers are interviewed, and at five-year 2,289 fathers are interviewed. Overall, 4,331 fathers were interviewed at least once across the five-year period.

### Measures

**Mental Health Problems**—A composite score for mental health problems is created by summing three dichotomously coded items—heavy episodic drinking (i.e., binge drinking), illicit drug use, and diagnosis of a major depressive episode—all of which are available at

the one-, three-, and five-year interviews (see Meadows, McLanahan, and Brooks-Gunn, 2008).<sup>1</sup> Heavy episodic drinking is defined as consumption of at least 5+ drinks in one sitting at least once in the previous month at the one-year interview and 4+ drinks in one sitting at least once in the previous month at the three- and five-year interviews. Roughly 26 percent of fathers at one-year and 28 percent at both three- and five-years report a recent episode of binge drinking. Illicit drug use is defined as use of at least one illicit drug (sedatives, tranquilizers, amphetamines, analgesics, inhalants, marijuana, cocaine, LSD/hallucinogens, or heroin) without a prescription, in larger amounts than prescribed, or for longer than prescribed, in the past month. Eight percent of fathers at one-year, 10 percent at three-years, and 12 percent at five-years reported recent illicit drug use. Depression is measured using the Composite International Diagnostic Interview Short Form (CIDI-SF). Ten percent of fathers at one-year, 14 percent at three-years, and 12 percent at five-years meet the diagnostic criteria for MDE. The mean mental health problem score for fathers in the analytic sample is .44 at one-year, .52 at three-years, and .51 at five-years. Because the measure of MDE is not available at baseline a 12-item version of the *Center for Epidemiologic Studies Depression Scale (CES-D)* is included in all models as a control. It reflects the average number of days per week the father reported depressive symptoms (mean = 1.16; range 0–7) and should not be confused with the clinical measure of depression utilized in the construction of the growth model itself. The baseline CES-D is correlated with MDE at .31, .29, and .28 and with the overall mental health measure at .21, .16, and .13, at the one-, three-, and five-year interviews, respectively.

**Self-Rated Health**—At the baseline, one-, three-, and five-year interviews fathers are asked to rate their overall physical health on a five-point scale where higher values indicate better health (i.e., excellent to poor). Fathers report a mean self-rated health score of 3.98 at baseline, 3.90 at one-year, 3.99 at three-years, and 3.84 at five-years.

**Relationship History and Family Structure Change Variables**—Using both maternal<sup>2</sup> and paternal reports of a father's relationship status, two types of relationship history variables are created: stability and transitions (see Table 1). *Stability* is a series of dummy variables that categorize a father's relationship with the biological mother as either married, cohabiting, or single across all waves. A residual category includes all fathers who experience at least one transition. Similarly, *transitions* are a series of dummy variables that categorize all the possible relationship changes a father can experience between waves (i.e., they are time-varying). These include exit from marriage, exit from cohabitation, movement into a marriage with either the biological mother or a new partner (including fathers who are cohabiting with biological mothers at birth and later marry them), movement into a cohabiting relationship with either the biological mother or a new partner, and a residual category for experiencing more than one transition (e.g., divorce and remarriage to a woman other than the biological mother). These transitions can occur between baseline (i.e., birth of the focal child) and the one-year interview, the one- and three-year interviews, and the three- and five-years interviews.

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<sup>1</sup>Results reported here treat both mental health problems and self-rated health as continuous variables. Additional models treated both as categorical using logistic and probit distributions and also treated mental health problems as a count variable using a Poisson distribution. These results revealed no substantive differences. In addition, alternate specifications treated each of component of the mental health measure individually (i.e., major depressive episode, binge drinking, and drug use). Results were similar for each outcome, however, one caveat is worth mentioning: exits from marriage appeared to have a stronger positive association with major depression and drug use than binge drinking.

<sup>2</sup>Maternal reports of a father's characteristics are used when his data is not available. Because mothers were not asked to indicate whether a father's coresidential relationship with a new partner was a marriage or a cohabiting union all results assume that new relationships were marriages. Additional analyses using the alternate assumption that all new relationships were cohabiting unions yielded substantively identical results.

**Controls**—At the baseline interview mothers are asked to indicate if the father has a *mental or physical condition* that limits the amount of work he can do. Mothers also rate fathers' impulsivity and antisocial behavior. *Impulsivity* is the mean of two questions: father often says and does things without considering the consequences and often gets into trouble because he does not think before he acts (mean = 1.06, range 0 - 3) (see Dickman 1990). *Antisocial behavior* is the mean of four questions: father does things that may cause trouble with the law, lies or cheats, frequently gets into fights, and does not seem to feel guilty when he misbehaves (mean = .39, range 0–2).

Models also control for whether the *father's biological parents suffered from a variety of mental health problems* including alcohol or drug abuse, depression, and anxiety and whether or not the *father lived with both biological parents at the age of 15*. Teachman (2002) finds that, in and of itself, time spent away from both biological parents, regardless of reason, is related to an increased risk of divorce. This variable may also capture a father's commitment to marriage and establishing a long-term, stable relationship. Adults raised in unstable families hold more negative views of marriage (Amato and DeBoer 2001), have more difficulty with interpersonal relationships (Ross and Mirowsky 1999), and have higher odds of experiencing divorce and relationship dissolution themselves (Wolfinger 1999). Finally, paternal reports of the *number of prior relationships* are used to control for previous relationship experiences and stability. This variable is especially useful in dealing with potential selection bias insofar as it controls for fathers' propensity to form unstable unions.

Basic socio-demographic controls include father's age at baseline (in years), education (less than high school, some college, and college degree and above with high school the omitted category), race (Black, Hispanic, and other with white being the omitted category), and an indicator for immigrant status. In cases where paternal reports are not available maternal reports are used as substitutes. Means and standard deviations for all variables can be found in Table 1.

**Selection Control**—Trajectory parameters are also adjusted for nonrandom selection into non-coresidential birth at the baseline interview by using a hazard rate instrument based on the inverse Mills ratio (Heckman, 1979). Known as lambda ( $\lambda$ ), the instrument represents the likelihood of experiencing a birth while not married or cohabiting with the biological mother. First, a probit model first estimates the likelihood of being unmarried at baseline.<sup>3</sup> Second, a lambda is constructed from that likelihood for each father such that higher values indicate a greater likelihood of being non-coresident at birth.

## Analytic Strategy

This paper uses latent growth curve modeling to capture the dynamic aspect of family structure on changes in mental and self-rated health. Assuming a linear pattern over time, each individual's trajectory is characterized by a unique intercept ( $\alpha$ ), linear, time-dependent slope ( $\beta$ ), and some measurement error ( $\epsilon$ ). Thus, the level one equation is as follows:

<sup>3</sup>Variables in the probit model include: father's age at baseline, education, race, immigrant status, and focal child gender; maternal report of father's mental/physical health at baseline and impulsivity and antisocial behavior; maternal and paternal reports of whether father was working/in school at baseline, had a drug/alcohol problem at baseline, incarceration history at the one-year interview, and whether the father's name would be on the birth certificate, the baby would have the father's last name, the father wanted to be involved in raising the child, and either parent considered an abortion (all at baseline); paternal access to an automobile, CES-D score, and smoking or binge drinking at baseline, number of children (under age 18) in the household at baseline, number of previous relationships, whether the focal child was a first birth, either biological parent had a mental health problem, father lived with both parents at age 15, and father visited the mother in the hospital. The lambda correction variable is not significantly associated with the intercepts or the slopes of self-rated health or mental health problems.

$$y_{it} = \alpha_i + \beta_i t + \varepsilon_{it} \quad (\text{Equation 1})$$

Each  $y_{it}$  is an observed measure of health--self-rated health at the baseline, one-, three-, and five-year interviews and mental health problems at the one-, three-, and five-year interviews. This equation represents within-individual ( $i$ ) change over time ( $t$ ).

In order to incorporate the time-varying family structure variables, Equation 1 is modified as follows:

$$y_{it} = \alpha_i + \beta_i t + \gamma_t w_{it} + \varepsilon_{it} \quad (\text{Equation 2})$$

The addition of the " $\gamma_t w_{it}$ " term represents the effect of each time ( $t$ ) family structure variable on health at time ( $t$ ) for each  $i$ th individual. Each  $\gamma$  represents a perturbation from the latent health trajectory caused by a change in family structure at a specific point in time. By regressing each  $\gamma_t w_{it}$  on subsequent measures of health (i.e.,  $y_{it+1}$ ) the analysis is also able to assess the lagged, or cumulative, effects of time-specific transitions on multiple observations of health thus allowing for a direct test of the resource model's assertion that the gap in well-being between certain groups of fathers increases/decreases over time. This model specification estimates the time-specific association between family structure and health controlling for a father's latent health trajectory. That is, any growth (or decay) in health over the period that may be associated with the stress associated with raising a young child is captured by the trajectory parameters.

The second level of the growth model, representing between-individual change over time, allows the random intercepts ( $\alpha_i$ ) and slopes ( $\beta_i$ ) to be a function of variables that change across individuals ( $i$ ) but do not change across time ( $t$ ). The level two equations are as follows:

$$\alpha_i = \alpha_0 + \alpha_1 x_{i1} + \alpha_2 x_{i2} + \dots + \alpha_k x_{ik} + u_i \quad (\text{Equation 3})$$

$$\beta_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_k x_{ik} + v_i \quad (\text{Equation 4})$$

For this analysis, the  $x$ 's are the controls and the selection instrument. The intercept and slope for each health outcome are directly regressed on these characteristics to assess for potential group differences in the means of the growth factors.

All models are estimated using Mplus, Version 4.1 (Muthén and Muthén 2006) using full information maximum likelihood (FIML) which incorporates respondents with missing data.<sup>3</sup> Specifically, fathers with incomplete data contribute only to those portions of the model where data is available.

## Results

### Self-Rated Health

The primary research question asks how stability and change in family structure after birth are associated with fathers' health trajectories and whether the patterns are consistent with the marital resource model. Results for fathers' self-rated health trajectories are presented in Table 2. *Hypothesis 1* predicted that fathers who were continuously married would have better health trajectories than fathers who were continuously single. According to the table, continuously single fathers do have significantly lower self-rated health at the one- and five-



year interviews ( $\beta = -.13, p < .05$  and  $\beta = -.18, p < .05$ ). Post estimation Wald chi-square tests indicate that the gap decreases between years one and three and subsequently increases between years three and five (see superscripts in Table 2, Row B). The results do not reveal an overall accumulation of the health deficit of stably single fathers relative to stably married ones. In terms of support for the marital resource model, then, the results are mixed; although the stably married do appear to have an advantage over the stably single in terms of self-rated health, this advantage does not accrue over time.

To assess whether the marital resource model extends to cohabiting unions the model presented in Table 2 was replicated treating the continuously cohabiting as the omitted group allowing for a comparison of stably cohabiting and stably single fathers (results not shown). Only at the three-year interview did continuously cohabiting fathers report significantly higher self-rated health than their continuously single counterparts ( $\beta = .19, p < .01$ ). The results also suggest that the gap grows between years one and three but declines between years three and five. Again the results are mixed with respect to the marital resource model; we see some evidence that stably cohabiting fathers are better off than their stably single counterparts but also witness both growth and decay in this gap.

*Hypothesis 2* predicted a growing gap between fathers who entered a marriage versus those who remained continuously single over the five-year period. Again, the model presented in Table 2 was reanalyzed using stably single fathers as the omitted group (results not shown). In contrast with the marital resource model, it does not appear that fathers who marry experience higher self-rated health, either at the time at which the event occurs or at subsequent times during the five year period. The same is true of fathers who enter a cohabiting relationship compared to those who are continuously single (results not presented). According to these results, and contrary to the hypothesis, entry into both types of coresidential unions is associated with no appreciable benefit to fathers in terms of self-rated health.

*Hypothesis 3* predicted that fathers who entered a marriage would have lower self-rated health than their continuously married counterparts but that these fathers would improve relative to them as time passed. Results in Table 2 suggest that this is not the case (see Row E). At no point do fathers who enter a marriage have lower time-specific self-rated health than father's who remained continuously married. A comparison of fathers who enter a cohabiting relationship compared to those who had been stably cohabiting reveals similar results, providing no support for the marital resource model.

*Hypothesis 4* predicted that fathers who exited a marriage would have worse self-rated health than fathers who remained continuously married and that this gap in well-being would grow over time. Although the coefficients in Row C of Table 2 suggest that divorce is associated with a time-specific decline in self-rated health, relative to stably married fathers, none of these coefficients are statistically significant (fathers who divorce between three- and five-years do see a marginally significant, time-specific decline in self-rated health at year five,  $\beta = -.18, p < .10$ ). Further, with the exception of possible growth in the health gap between the three- and five-year interviews for fathers who exited a marriage early in the observation period (i.e., between baseline and year one), there is little evidence to support a growing health disparity between exitors and stably married fathers ( $\beta = -.01, ns$  at year one and  $\beta = -.20, p < .10$  at year three). Support of the resource model for cohabiting fathers is even weaker; at no point do continuously cohabiting fathers have higher self-rated health than those who exit cohabitation.

## Mental Health Problems

Results for mental health problems are reported in Table 3. In support of *Hypothesis 1*, continuously single fathers have significantly more mental health problems at the one-year ( $\beta = .15, p < .01$ ), three-year ( $\beta = .18, p < .01$ ), and five-year ( $\beta = .12, p < .05$ ) interviews than continuously married fathers (see Row B, Table 3). In contrast to *Hypothesis 1*, however, this gap does not widen over time. Continuously cohabiting fathers see no advantage over continuously single fathers at any point providing little support for extension of the resource model to cohabitation (results not shown).

*Hypothesis 2* predicted that fathers who entered into a marriage would have fewer mental health problems than continuously single fathers and that this gap in well-being would grow over time, with single fathers exhibiting more problems. Results from a model using the stably single as the omitted category reveal that fathers who enter a marriage between the baseline and one-year surveys do report fewer mental health problems than stably single fathers at year one ( $\beta = -.14, p < .05$ ) and continue to report fewer mental health problems at year three ( $\beta = -.10, p < .10$ ). However by year five, the differential between these two groups of fathers, although in the predicted direction, is no longer statistically significant ( $\beta = -.11, ns$ ). Results also reveal that this gap does not grow over time. Fathers who enter marriages between the one- and three-year surveys and the three- and five-year surveys also report fewer time-specific mental health problems at years three and five, respectively, than stably single fathers. However it should be noted that, although these coefficients approach statistical significance at the minimal cutoff of .10, they do not achieve it ( $\beta = -.10, t = -1.62$  at year three and  $\beta = -.11, t = -1.56$  at year five).

Comparing fathers who enter cohabiting unions to those who remain stably single reveals a significant difference only at year five for fathers who recently entered the union (i.e., enter cohabitation between the three- and five-year interviews). Fathers who entered reported significantly fewer mental health problems ( $\beta = -.17, p < .05$ ). Data constraints do not yet permit following these fathers into the future so it is unclear whether they will experience an increase in the well-being gap over time, as predicted by the resource model. Results from fathers who entered a cohabiting union early in the observation period do not suggest that the gap widens.

*Hypothesis 3* predicted that while continuously married fathers would have fewer mental health problems than newly married fathers, this gap would shrink. Results from Row E in Table 3 do not support this contention. Levels of mental health problems do not significantly differ between the two groups either at the time a father enters a marriage (i.e., the diagonals) or subsequently (i.e., across rows). For fathers who enter cohabiting unions, one time-specific effect emerges: fathers who enter between the three- and five-year surveys report significantly fewer mental health problems at year five than continuously cohabiting fathers ( $\beta = -.17, p < .05$ , results not shown). Again, given data constraints, it is unclear whether this trend will increase, as is predicted by the resource model.

Finally, *Hypothesis 4* contrasts fathers who exited marriage to those who remained stably married. The resource model predicted that fathers who exit a marital union would report more mental health problems and that the gap between themselves and stably married fathers would grow over time as they spent more time single. Fathers who exit do report more time-specific mental health problems at year one ( $\beta = .33, p < .05$ ) and year three ( $\beta = .29, p < .01$ ) but not year five ( $\beta = .12, ns$ ), although the coefficient indicates a similar pattern (see Row C). Yet there is no evidence of a growing gap when comparing lagged effects of exits. Comparing fathers who exit cohabiting unions to fathers who remain stably cohabiting indicates that only at year three is there a time-specific effect associated with separation such that fathers who leave cohabiting unions between the one- and three-year

interviews report more mental health problems ( $\beta = .14, p < .05$ ). Examination of the lagged effects of exit transitions suggests that fathers who separate between the baseline and one-year survey initially do not report more mental health problems than stably cohabiting fathers but by year five the gap grows, with exitors reporting more problems ( $\beta = -.01, ns; \beta = .07, ns$ ; and  $\beta = .17, p < .05$  at years three and five respectively).

## Summary

Table 4 presents a summary of the results indicating both the predicted direction of the health benefit and the predicted growth (or decay) in the well-being gap over time. Three main conclusions can be derived from the table. First, the results show weak support for the resource model regardless of union type or health outcome. Little evidence of a *cumulative advantage* for continuously married fathers, compared to the continuously single or fathers who exited from a marriage, was found. However, a pattern of results did emerge such that stably married fathers reported higher *time-specific* observed self-rated health and fewer mental health problems than either stably single fathers or fathers who exited marriage. Second, the resource model may also apply to cohabiting unions, however, the results provide only weak evidence for this extension of the model. Continuously cohabiting fathers fared better than their continuously single counterparts in terms of self-rated health but this advantage did not extend to fathers who exited a cohabiting union. In contrast, continuously cohabiting fathers reported fewer mental health problems than fathers who separated but this advantage did not extend to continuously single fathers. Similar to marriage, in few instances were the benefits associated with being a continuously cohabiting father consistent over time. Finally, the resource model received more support with respect to mental health problems than self-rated health, regardless of whether marriage or cohabitation was the union status in question.

## Selection

According to the selection hypothesis, prior to the transition, fathers who exit a marriage later in the five-year observation period should report worse health than the continuously married. Conversely, fathers who enter coresidential relationships should look better than their stably single counterparts prior to making the transition. If the resource model applies to cohabitation the same should be true of fathers who separate from or enter into cohabiting unions. By examining the coefficients of time-specific transitions on the observed health measures prior to the event we can assess whether this is the case. Results for self-rated health yielded little support for the selection hypothesis; pre-disruption effects of transitions did not indicate that fathers who would eventually exit unions looked worse than stably married or cohabiting fathers, nor did fathers who would eventually enter coresidential unions look better than stably single fathers. In terms of mental health problems, however, fathers who entered marriages or cohabiting unions between the three- and five-year surveys reported fewer problems than stably single fathers prior to experiencing the transition at years one and three (results not reported). Fathers who exited coresidential unions did not report more mental health problems prior to the transition compared to stably married or stably cohabiting fathers. Thus there is some support for selection into coresidential unions based on mental health status.

## Discussion and Conclusion

The marital resource model posits that the disparity in well-being between married and unmarried parents will grow as a function of the time spent in each status. This paper has attempted to test this and related hypotheses by following self-rated and mental health trajectories of fathers in different family structures, focusing on transitions into and out of marriages and cohabiting unions. For both outcomes, continuously married fathers appeared

the healthiest, especially when compared to continuously single fathers or fathers who exit a marriage. What was not clearly evident was a *growing* disparity in health between continuously married, or continuously cohabiting, and continuously single fathers over the five-year span following the birth of a child. Nor did the results provide evidence of a growing disparity between fathers who exit coresidential relationships and continuously coresidential fathers.

Why did the results find little support for the resource model? First, fathers in the FFCWS are, overall, young and healthy resulting in little change in physical health over time. Williams and Umberson (2004) report a negative effect of marital dissolution on health, but only among men aged 50 and over. Second, although the paper expands the “traditional” operationalization of mental health problems by including drug and alcohol use, these problems are severe and relatively rare in the sample and in the general population. It is possible that if a symptom count of depressive symptoms had been available for all waves a stronger association may have emerged between family structure change and mental health trajectories. Despite this, the resource model does appear better able to handle mental health outcomes. It is possible that mental health is more malleable, and, thus, shows more variability, than physical health, especially in this young, healthy sample. Third, because fathers were only observed for five years, long-term, cumulative trends in health may not yet be evident. A lifetime without an intimate partner who provides emotional stability and monitoring of health behaviors is likely to have a greater influence on health later in the life course (see Lorenz et al. 2005). This may be especially true for physical health problems, such as chronic disease and disability that have complex etiologies and take years to manifest.

Finally, self-rated and mental health may be too distal outcomes with which to gauge the mid-range effect of family structure change on well-being. Financial capital, diet, exercise, preventative medicine, and social support have all been implicated as possible mechanisms for marriage's salubrious effect and these factors are themselves likely to respond to changes in family structure, both in the short- and long-term. An extension of the resource model would suggest that these factors accumulate, or evaporate, with changes in family structure. As such, it may be premature to completely rule out the applicability of the resource model. This is certainly an area where more research is needed.

## Limitations

Despite attempts to address selection, it may still have affected the results. Although models estimate associations between family structure change and health independent of fathers' latent health trajectories, fathers are not observed prior to the birth of the focal child. Thus, it is not possible to rule out differential selection on *unobserved* characteristics. Further, the FFCWS sample is predominantly comprised of disadvantaged fathers residing in large cities limiting the generalizability of the results to all fathers or to non-parent men. At the same time, using this specific sample, one in which both rates of family structure change and other stressful life events, as well as susceptibility to poor health and mental health problems, is increased relative to a national sample, allows researchers to test the marital resource model in an environment where it should be most apparent.

## Conclusion

Consistent time-specific differences in health do exist across fathers based on family structure. This result could also be viewed as evidence of the steady-state hypothesis (Lucas et al., 2003). That is, fathers may be shifted off some unique, individual trajectory of well-being following a change in family structure, but ultimately they return to their normal level of psychological functioning. Ultimately, though, the presence of static differences between

groups of fathers based on family structure experiences suggests that the socio-emotional and financial resources that fathers carry with them into unions, as well as the resources they may acquire from being in those unions, may be enough to buffer them against short-term, negative changes to well-being following a separation or divorce. This conclusion implies that selection places fathers *into* different family structures. At the same time, it is not necessary that selection is responsible for *exists* from certain types of structures (i.e., selection “in” but no selection “out”). Indeed, the results presented here support this contention. Fathers with good mental health, or high wages, may be more likely to get married, but not also more likely to divorce. When they do divorce, however, they are able to use those resources to pay for the costs of union dissolution.

Given recent policy interest in promoting marriage among low-income, unmarried parents, and in helping those couples sustain healthy marriages, studies examining the benefits associated with marriage, as well as the costs associated with union dissolution, among parents, have renewed importance in social science inquiry. Consistent with previous studies on non-parent men, the results presented here suggest that stable, long-term marriage is associated with higher levels of well-being than are found among single fathers or fathers who experience disruption of a coresidential relationship. And while differences between continuously married fathers and single fathers do not appear to increase over time these disparities also do not diminish with time. On the one hand, this is far from the goal of policy, namely, closing the gap. On the other hand, it is still too early to tell whether marriage after a nonmarital birth will lead to long-term health benefits among the fathers from these fragile families ten or twenty years from now. Perhaps one way to address these differences in the present is to focus on building resources, including education, employment opportunities, and relationship skills, among all fathers.

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## Biography

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**Table 1**

Descriptive Statistics (Means or Percentages, with Standard Deviations in Parentheses).

	Mean	S.D.
<b>Health Outcomes</b>		
<i>Self-Rated Health</i> ; Baseline (Range: 1–5)	3.98	(.94)
One-Year	3.90	(1.02)
Three-Year	3.99	(.97)
Five-Year	3.84	(.99)
<i>Mental Health Problems</i> : One-Year (Range: 0–3)	.44	(.64)
Three-Year	.52	(.71)
Five-Year	.51	(.71)
<b>Relationship History Variables</b>		
<i>Baseline Relationship with the Biological Mother</i>		
Married	26.84	
Cohabiting	41.25	
Romantic, Nonresident	22.61	
No Relationship	9.31	
<i>Relationship Stability</i>		
Continuously Married	22.34	
Continuously Cohabiting	9.01	
Continuously Single	9.98	
Unstable	58.66	
<i>Relationship Transitions<sup>a</sup></i>		
Exit Marriage		
Baseline and One-Year	.69	
One-Year and Three-Year	1.30	
Three-Year and Five-Year	2.88	
Exit Cohabitation		
Baseline and One-Year	4.31	
One-Year and Three-Year	4.15	
Three-Year and Five-Year	4.34	
Enter Marriage		
Baseline and One-Year	6.19	
One-Year and Three-Year	4.48	
Three-Year and Five-Year	5.37	
Enter Cohabitation		
Baseline and One-Year	2.90	
One-Year and Three-Year	.94	
Three-Year and Five-Year	2.90	
Multiple Transitions	18.20	
<b>Control Variables</b>		
Depressive Symptoms (CES-D; Range: 0–7) <sup>b</sup>	1.16	(1 .19)

	<b>Mean</b>	<b>S.D.</b>
Number of Previous Relationships (Range: 0 – 20)	3.69	(4.27)
Parents' Mental/Physical Health Problem	47.42	
Lived with Both Biological Parents at Age 15	46.83	
Impulsivity <sup>c</sup> (Range: 0–3)	1.06	(1.01)
Antisocial Behavior <sup>c</sup> (Range: 0–2)	.39	(.57)
Age <sup>c</sup> (Range: 15–67)	27.94	(7.27)
<i>Education:</i> <sup>c</sup> Less than High School	33.07	
High School	33.61	
Some College	22.64	
College Degree and Above	10.68	
<i>Race:</i> <sup>c</sup> Black	48.83	
White	19.41	
Hispanic	27.06	
Other	4.70	
Immigrant Status	18.26	

Notes: N = 4,331 and includes all fathers who were ever interviewed. Means and percentages do not account for missing data.

<sup>a</sup>Mutually exclusive categories created from the “Unstable” group.

<sup>b</sup>Baseline reports.

<sup>c</sup>Maternal and paternal report.

Table 2

Growth Model of Observed Paternal Self-Rated Health and Time-Varying Family Structure Variables (n =4,331).

	Observed Self-Rated Health		
	One-Year	Three-Year	Five-Year
<i>Family Structure Variables<sup>a</sup></i>			
A. Continuously Cohabiting	-.02 <sup>gh</sup>	.10 <sup>†gd</sup>	-.15 <sup>*hd</sup>
B. Continuously Single	-.13 <sup>*g</sup>	-.004 <sup>ge</sup>	-.18 <sup>*e</sup>
C. Exit Marriage			
Baseline to One-Year	-.61 <sup>**ed</sup>	.06 <sup>e</sup>	.17 <sup>d</sup>
One-Year to Three-Year		-.51 <sup>***</sup>	-.31 <sup>†</sup>
Three-Year to Five-Year			-.10
D. Exit Cohabitation			
Baseline to One-Year	-.06	-.07	-.15
One-Year to Three-Year		-.08	-.08
Three-Year to Five-Year			-.10
E. Enter Marriage <sup>b</sup>			
Baseline to One-Year	-.07	.01 <sup>g</sup>	-.12 <sup>g</sup>
One-Year to Three-Year		-.01	-.09
Three-Year to Five-Year			-.03
F. Enter Cohabitation <sup>c</sup>			
Baseline to One-Year	-.04	-.01 <sup>e</sup>	-.20 <sup>†e</sup>
One-Year to Three-Year		-.14	-.05
Three-Year to Five-Year			-.18 <sup>†</sup>
G. Multiple Transitions	-.10 <sup>*ef</sup>	.04 <sup>ed</sup>	-.26 <sup>***fd</sup>
<b>Model Fit</b>			
$\chi^2$ (df)		115.00 <sup>***</sup> (50)	
RMSEA		.017	
TLI		.943	
CFI		.977	

Notes: Trajectory intercept is 4.58 ( $p < .001$ ) and slope is estimated at .09 ( $p < .01$ ). Model controls for age at baseline, education, race, immigrant status, baseline CES-D, living with both biological parents at age 15, number of previous relationships, biological parents' mental health history, maternal rating of fathers' antisocial behavior and impulsivity, lambda, and stability before a transition.

<sup>a</sup>Continuously married is the referent category.

<sup>b</sup>With both biological mothers and new partners. Includes cohabitation to marriage group.

<sup>c</sup>With both biological mothers and new partners.

<sup>d</sup>Coefficients sharing the same letter indicate a significant difference at  $p < .01$ .

<sup>e</sup>Coefficients sharing the same letter indicate a significant difference at  $p < .05$ .

<sup>f</sup> Coefficients sharing the same letter indicate a significant difference at  $p < .05$ .

<sup>g</sup> Coefficients sharing the same letter indicate a significant difference at  $p < .10$ .

<sup>h</sup> Coefficients sharing the same letter indicate a significant difference at  $p < .10$ .

<sup>†</sup>  
 $p < .10$

\*  
 $p < .05$

\*\*  
 $p < .01$

\*\*\*  
 $p < .01$ , two-tailed tests

**Table 3**

Growth Model of Observed Paternal Mental Health Problems and Time-Varying Family Structure Variables (n = 4,331).

	Observed Mental Health Problems		
	One-Year	Three-Year	Five-Year
<i>Family Structure Variables<sup>a</sup></i>			
A. Continuously Cohabiting	.12**	.14**	.12*
B. Continuously Single	.15**	.18**	.12*
C. Exit Marriage			
Baseline to One-Year	.33*	.15	.13
One-Year to Three-Year		.29**	.18
Three-Year to Five-Year			.12
D. Exit Cohabitation			
Baseline to One-Year	.12 <sup>†d</sup>	.20**	.30*** <sup>d</sup>
One-Year to Three-Year		.27*** <sup>e</sup>	.14* <sup>e</sup>
Three-Year to Five-Year			.15*
E. Enter Marriage <sup>b</sup>			
Baseline to One-Year	.02	.05	.03
One-Year to Three-Year		.05	.13*
Three-Year to Five-Year			.03
F. Enter Cohabitation <sup>c</sup>			
Baseline to One-Year	.11	.23**	.13 <sup>†</sup>
One-Year to Three-Year		.18	.04
Three-Year to Five-Year			-.04
G. Multiple Transitions	.13**	.17*** <sup>d</sup>	.09 <sup>†d</sup>
<b>Model Fit</b>			
$\chi^2$ (df)		59.61*** (16)	
RMSEA		.025	
TLI		.865	
CFI		.977	

Notes: Trajectory intercept is .37 (p < .01) and slope is estimated at .05 (ns). Model controls for age at baseline education, race, immigrant status, baseline CES-D, living with both biological parents age at 15, number of previous relationships, biological parents' mental health history, maternal rating of fathers' antisocial behavior and impulsivity, lambda, and stability before a transition.

<sup>a</sup>Continuously married is the referent category.

<sup>b</sup>With both biological mothers and new partners. Includes cohabitation to marriage group.

<sup>c</sup>With both biological mothers and new partners.

<sup>d</sup>Coefficients sharing the same letter indicate a significant difference at p < .05.

<sup>e</sup>Coefficients sharing the same letter indicate a significant difference at p < .10.

$\dagger$   
p < .10

\*  
p < .05

\*\*  
p < .01

\*\*\*  
p < .01, two-tailed tests

**Table 4**

Summary of Results for Paternal Self-Rated Health and Mental Health Problems.

	<i>Hypothesis 1</i>	<i>Hypothesis 2</i>	<i>Hypothesis 3</i>	<i>Hypothesis 4</i>
	<b>Continuously Married vs. Continuously Single</b>	<b>Enter Marriage vs. Continuously Single</b>	<b>Enter Marriage vs. Continuously Married</b>	<b>Exit Marriage vs. Continuously Married</b>
<i>Predicted Direction</i>	<i>Cont. Married Better</i>	<i>Enter Marriage Better</i>	<i>Cont. Married Better</i>	<i>Cont. Married Better</i>
Support: SRH	<b>MIXED</b>	<b>NO</b>	<b>NO</b>	<b>MIXED</b>
MHP	<b>YES</b>	<b>MIXED</b>	<b>NO</b>	<b>YES</b>
<i>Predicted Gap</i>	<i>Grow</i>	<i>Grow</i>	<i>Shrink</i>	<i>Grow</i>
Support: SRH	<b>MIXED</b>	<b>NO</b>	<b>NO</b>	<b>MIXED</b>
MHP	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
	<b>Continuously Cohabiting vs. Continuously Single</b>	<b>Enter Cohabitation vs. Continuously Single</b>	<b>Enter Cohabitation vs. Continuously Cohabiting</b>	<b>Exit Cohabitation vs. Continuously Cohabiting</b>
<i>Predicted Direction</i>	<i>Cont. Cohabiting Better</i>	<i>Enter Cohab. Better</i>	<i>Cont. Cohabiting Better</i>	<i>Cont. Cohabiting Better</i>
Support: SRH	<b>MIXED</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
MHP	<b>NO</b>	<b>MIXED</b>	<b>MIXED</b>	<b>MIXED</b>
<i>Predicted Gap</i>	<i>Grow</i>	<i>Grow</i>	<i>Shrink</i>	<i>Grow</i>
Support: SRH	<b>MIXED</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
MHP	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>MIXED</b>

Notes: For each hypothesis the predicted direction of the gap in well-being is indicated as well as whether this gap was expected to grow or shrink or shrink. A YES, NO, or MIXED indicates the degree to which each prediction is supported for self-rated health (SRH) and mental health problems (MHP).