Assortative Par	rtnering and Child Development:
How are Relationship Type and Concordance for Mental Disorders Related to Healthy Children?	
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Introduction

A large and growing body of literature suggests that maternal mental health is closely related to child wellbeing (Hay and Pawlby, 2003; Minkovitz et al., 2005), and a smaller literature suggests that paternal psychopathology (Phares and Compas, 1992; Ramchandani et al., 2005) or having at least one parent with a mental disorder negatively affects child wellbeing (Marmorstein, Malone, and Iacono, 2004; Merikangas, Prusoff, and Weissman, 1988). A limitation of these studies is their focus on the psychopathology of only one parent. This oversight is potentially important given that the health of one parent is often correlated with the health of the other. Thus, it is not clear whether mother's or father's mental health is more important for children or whether parental concordance for psychopathology has additive (i.e., independent) or multiplicative deleterious effects on child health (Brennan et al., 2002). With respect to the latter, it is equally possible that the presence of one healthy parent in a child's life can buffer the deleterious effects of having one mentally ill parent.

A potentially more serious limitation of the existing literature is its reliance on selective samples (e.g., married parents, convenience samples, twin pairs). The result is a body of literature that frequently neglects a broad range of family types, such as cohabiting parents or non-resident romantic partners. Other family types are increasingly important, as 32% of children now live in non-intact (i.e., non-married) families (Fields, 2003). Recent research shows that concordance for mental disorders is higher among non-married parents (DeKlyen et al., forthcoming). Furthermore, reliance on convenience samples, with little racial variation, ignores possible race and class differences that may exist in the link between parental mental health and child wellbeing.

Building on these studies, the current research draws on the concept of assortative mating based on mental health, recognizing that this phenomenon can be extended to non-marital

relationships, to address the question of how concordance for mental disorders among parents is related to child wellbeing and how this varies by relationship status. The analysis expands the existing literature by using a population based sample of new parents in married, cohabiting, romantic, and non-romantic relationships. Including unmarried parents is particularly important given the high concentration of non-marital births among racial minorities and lower status individuals. Finally, the data contain mental health measures for both mothers and fathers and thus they allow us to disentangle individual, parent-level effects from relationship-level effects, which are often masked in studies which include only one parent. These data also allow us to investigate the additive and/or multiplicative effects associated with combinations of parents with varying degrees of mental health.

Motivation and Background

Existing studies, which usually focus primarily on mothers or fathers, indicate that mothers' psychopathology is more harmful for children than fathers' psychopathology (see Foley et al., 2001; Phares and Compas, 1992). They also suggest that having two parents who suffer from a mental disorder is worse for children than having only one unhealthy parent (Beardslee, Versage, and Gladstone, 1998; Marmorstein et al., 2004). Some research indicates that having a father with a mental disorder is neither a necessary nor a sufficient condition for child psychopathology, whereas other research shows that the effect of fathers' mental health depends on whether or not he lives with the child (Berger and Osborne, 2005; Jaffee et al., 2003). A few studies suggest that the presence of a mentally healthy father appears to reduce the negative effect of an unhealthy mother (Tannenbaum and Forehand, 1994; Kahn, Brandt, and Whitaker, 2004), although only a few explicitly test for this mediating effect and fewer still test for a buffering, or interaction, effect between the presence of an unhealthy mother and healthy father. Finally, some but not all studies report that same-sex parent-child pairs typically show a stronger

relationship between parent disorder and child development problems than opposite-sex parent-child pairs (see Davies and Windle, 1997 for support; but see Marmorstein et al., 2004 and Ohannessian et al., 2005 for contrary findings).

A number of meta-reviews indicate that more and more studies are examining the mental health of both parents simultaneously (see Beardslee et al., 1998). As noted by Phares and Compas (1992), in order to accurately assess the unique impact of each parent, both parents' characteristics must be entered into statistical models separately and interactions must be tested in order to capture the buffering (or exacerbating) effects of one healthy (or unhealthy) parent when the other parent is ill. Studies that focus on one parent only force couple, family, or relationship effects into individual or parent-specific effects. Furthermore, most studies examine intact families, consisting of two biological parents (although a few include families with stepfathers), despite acknowledged differences in the propensity for married and unmarried partners to share psychopathologies (DeKlyen et al., forthcoming). The psychiatric literature also uses convenience samples and clinical populations, which are often racially homogeneous, thereby reducing our ability to generalize the findings and ignoring the fact that many children live in families where parents are not married.

This paper expands existing child development research in a number of important ways. First, we examine the distribution of co-morbidity among both intact and non-intact families (e.g., cohabiting parents, romantic, non-cohabiting parent, and non-romantic parents). Second, we use a population based sample of new parents to investigate possible additive and multiplicative impacts of having two parents with psychopathologies on children's cognitive abilities and behavioral problems at age three. We also examine whether or not effects vary by same-sex or opposite-sex parent-child pairs. And finally, we assess the effect of parental living arrangements on child wellbeing in families where one or both parents suffer from a mental

illness. This last analysis allows us to determine how time spent with unhealthy fathers, whether resident or non-resident, affects child wellbeing.

Data

The study uses data from the Fragile Families and Child Wellbeing Study, a longitudinal survey of approximately 4900 hundred births in 75 hospitals in 20 large U.S. cities between 1998 and 2000. The study over-samples for non-marital births making it ideal for the purposes outlined above. The data include measures of both mothers' and fathers' depression and anxiety, substance abuse problems (alcohol and drugs), and anti-social behaviors. They also include measures of children's cognitive (verbal and math) and socio-emotional development at age three. Details about the sample design have been published elsewhere (Reichman et al., 2001).

Expected Findings

With respect to the first question, we expect that married couples will show the lowest likelihood of concordance on psychiatric disorders followed by cohabiting couples, couples in non-resident romantic relationships, and couples who are not romantically involved (DeKlyen et al., forthcoming). With respect to the second question, we expect that the presence of two parents afflicted with a psychiatric disorder will have a multiplicative effect on child wellbeing but that this effect will depend on both the type of childhood problem and parental disorders in question. Finally, we expect that the parents' living arrangements will moderate the effect of psychopathology on children, with co-resident parents having stronger effects than non-co-resident parents.

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