

# Fathering and adolescents' psychological adjustment: the role of fathers' involvement, residence and biology status

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## Abstract

**Background** Studies on fathering and child mental health are now increasingly looking for specificity in children's psychological adjustment, indicating whether the impact of fathering is diagnostically specific or non-specific.

**Methods** Data from 435 fathers of secondary school-aged children in Britain were used to explore the association between resident biological fathers', non-resident biological fathers' and stepfathers' involvement and children's total difficulties, prosocial behaviour, emotional symptoms, conduct problems, hyperactivity and peer problems (all measured with the Strengths and Difficulties Questionnaire) in adolescence.

**Results** After controlling for child-, father- and family-related factors, fathers' involvement was negatively associated with children's total difficulties and hyperactivity, was positively associated with children's prosocial behaviour, and was unrelated with children's emotional symptoms, conduct problems and peer problems. There was no non-resident biological father effect. Compared with resident biological fathers, stepfathers reported more total difficulties, conduct problems and hyperactivity in their children even after adjusting for involvement.

**Conclusions** Whether this reflects stepfathers' low tolerance levels or biological fathers' complacency, as sociobiologists would argue, or whether this is due to pre-existing predispositions of children in families which separate and restructure, to the effects of these multiple family changes or to the high exposure of children in restructured families to parental risk factors, is, given the data available and the study design, unclear. However, this study showed that, compared with their peers in biological father families, adolescents in stepfather families are perceived to be at higher risk of behaviour problems, and that father involvement is related to specific aspects of child adjustment.

## Keywords

father's involvement, fathering, Strengths and Difficulties Questionnaire

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## Introduction

Parenting is associated with children's psychological adjustment (Maccoby 2000) but fathers' parenting has, until at least the past decade, received limited attention in research compared with mothers' parenting (Barber *et al.* 2005, for a review). This lack

of emphasis on the role of fathering is unfortunate given that there are several reasons why one should expect fathers to be particularly significant in influencing children's psychological outcomes (Cabrera *et al.* 2000). First, fathers' engagement, like mothers' engagement, with their children will likely exert influences on child development (Lamb 1997), and paternal

accessibility might similarly offer children a sense of emotional support (Cabrera *et al.* 2000). Second, fathers' relationships with their children are distinct from mother-child relations, with fathers in general encouraging their children to be competitive and independent (Paquette 2004), and spending more time than mothers in playful and physically stimulating interactions with their children (DeKlyen *et al.* 1998). Therefore, fathers may be particularly influential in the development of certain aspects of child behaviour. Third, in families in which fathers are involved mothers also tend to be involved (Amato 1994), and therefore children raised in such families benefit from having two highly involved parents with the consequent diversity of stimulation and increase in social capital (Coleman 1988). Similarly, fathers disengage from children with increasing inter-parental conflict (Harris *et al.* 1998), and therefore in families where the father is involved the overall family context in which children are raised tends to be positive, which in turn contributes to positive child outcomes in general (Kelly 2000). Fathers can also indirectly impact on their children's psychological adjustment. Fathers' continuing financial support of their children, for instance, can affect child outcomes by influencing the economic structure of the household (Crockett *et al.* 1993).

In terms of the evidence, some of the findings of those empirical studies that have linked fathering and children's psychological adjustment are impressive. Amato (1994), for instance, showed that closeness to fathers during childhood was positively related to both daughters' and sons' psychological adjustment and well-being in adult life even after controlling for closeness to mothers. In Britain, recent research using longitudinal data from the 1958 birth cohort study showed that early fathers' involvement, even after controlling for mothers' involvement, protected against daughters' psychological distress in adulthood and against psychological maladjustment in adolescents from non-intact families (Flouri & Buchanan 2003), and was positively associated with successful personal relationships later in life (Flouri & Buchanan 2002). On the other hand, studies also suggest that father absence is a factor contributing to the lower well-being of children in mother-only families (Dornbusch *et al.* 1985), although other research shows that father absence has few consequences for children once economic factors are controlled for (Crockett *et al.* 1993). This research on father absence and child outcomes links well with studies on associations between child outcomes and family structure, disruption or 'non-intactness' (Amato 2000; McMunn *et al.* 2001), which show, although not consistently (Chase-Lansdale *et al.* 1995), that children experiencing family disruption carry a heightened risk of short-term and long-term

psychological disorders. This risk may be modified by the structure of the family following disruption (Hofferth 2006): several studies have found that, on average, children's psychological adjustment is worse in stepfamilies than in single-parent families (Amato & Keith 1991). However, it is not yet clear if the elevated levels of father-reported child maladjustment in stepfather families simply reflect low tolerance levels on the part of stepfathers, as sociobiologists would argue (e.g. Daly & Wilson 1998), or is evidence for the higher risk of child maladjustment, and especially externalizing symptoms (e.g. Foley *et al.* 2004), in restructured families (see Dunn 2002 for a review). In other words, it is not clear if, compared with resident biological fathers, stepfathers inflate problematic behaviour in their children, or whether children in stepfather families are at higher risk than children in resident biological father families of problem behaviour. Foley and colleagues (2004), for example, showed recently that children living in stepfather families are exposed to more parental psychiatric risk factors than children from intact families.

Recently, the research on fathering and children's psychological adjustment has significantly started to move away from linking family structure with children's problem behaviour to exploring the role of specific fathering dimensions in specific children's mental health outcomes (Carlson 2006). Studies are now increasingly looking for specificity in both children's psychological adjustment (e.g. Sturgess *et al.* 2001), indicating whether the impact of fathering is diagnostically specific or non-specific (Enns *et al.* 2002), and fathering dimensions (Fox & Bruce 2001; Barber *et al.* 2005; Stolz *et al.* 2005).

### This study

This study aimed to contribute further evidence for the link between adolescent children's psychological adjustment (emotional symptoms, conduct problems, hyperactivity, peer relationships problems, total difficulties and prosocial behaviour) and both fathers' involvement and fathers' residence and biology status (resident biological, non-resident biological and stepfather) in a community sample of fathers of adolescents in Britain. Loosely following Belsky's (1984) process model of parenting this study controlled for those family-, child- and father-related factors that are associated with both fathers' involvement and child adjustment.

These factors were sibship size, family's socio-economic disadvantage and inter-parental conflict, child's age and sex, and father's education and mental health. Sibship size was included as it is negatively related to parenting in general (Menaghan 1999) and fathering in particular (Pleck 1997), perhaps because

fathers in larger families may feel greater breadwinner pressure, and is also (as a proxy for low socio-economic status and socio-economic disadvantage) a risk factor for children's mental health problems (Hetherington & Martin 1986; Bradley & Corwyn 2002). Inter-parental conflict, child's age and sex, and father's education and psychological distress are also related to both child's mental health outcomes and father's parenting (Amato 1994; Flouri & Buchanan 2002). Inter-parental conflict, according to Davies and Cummings's (1994) emotional security hypothesis, undermines feelings of emotional security in children (by eliciting, for instance, fear, distress, vigilance, avoidance or involvement), which then impact on psychological adjustment, especially internalizing symptoms (Davies & Cummings 1998). Levels of inter-parental conflict also predict levels of fathers' involvement (Buehler *et al.* 2006; Kaczynski *et al.* 2006) as fathers (but not mothers) disengage from children with increasing inter-parental conflict (Harris *et al.* 1998). According to role theory, this might be because compared with mothering fathering lacks a clear 'job description' (Bonney *et al.* 1999) and so fathers' behaviour is strongly influenced by the meanings and expectations of fathers themselves, as well as mothers, children, extended family, and broader cultures and institutions (such as, in this case, a 'strong' marriage/partnership where conflict is low and satisfaction is high). Equally well established is the link between child's age and sex and psychological adjustment, with evidence showing that, with cross-cultural consistency, girls score higher for internalizing and lower for externalizing behaviour problems than boys (Verhulst *et al.* 2003), and that in school-aged children externalizing behaviour problems in general decrease, while internalizing behaviour problems in general increase with age (Crijnen *et al.* 1997). Child's age and sex are also related to fathering (O'Connor *et al.* 2006; Raley & Bianchi 2006). In adolescence, the father-child relation changes, particularly for girls (Youniss & Smollar 1985; Williams & Kelly 2005). Paterson and colleagues (1994), for instance, showed that over time both adolescent boys and adolescent girls rate the quality of affect towards their fathers (although not their mothers) as lower, and more recently, Lieberman and colleagues (1999) found that adolescent girls (but not boys) perceive their fathers as less available. Fathers' psychological distress was included in the analysis in light of the evidence that apart from maternal psychopathology, paternal psychopathology is also modestly related to child psychopathology (Connell & Goodman 2002). In their meta-analysis examining the relative strength of the association between psychopathology in mothers versus fathers and the presence of internalizing and externalizing disorders in children, Connell and Goodman (2002) showed that although children's internalizing problems

were more closely related to the presence of psychopathology in mothers than in fathers, externalizing problems in children were equally related to the presence of psychopathology in mothers and fathers. Paternal psychopathology, and in particular depression, also compromises fathers' parenting abilities (Leinonen *et al.* 2003), although it seems that in general depression is more closely related to disrupted parenting in women than in men (Jacob & Johnson 1997), perhaps because of the more active coping style of depressed men compared with depressed women (Nolen-Hoeksema 2001). Finally, fathers' education was controlled for given that, compared with less educated fathers, more educated fathers are both more involved (Yeung *et al.* 2001) – as they are more knowledgeable about children's developmental need for positive parenting, for instance – and more likely to have children who are psychologically well-adjusted anyway – as, for example, they are more likely to belong to high socio-economic groups which is related to positive child outcomes in general (Bradley & Corwyn 2002).

## Method

### Participants

This study was conducted as part of a larger quantitative and qualitative study of parenting in fathers with secondary school-aged children in South England. Pupils of three comprehensive schools (one in an inner city, one in a suburban and one in a rural area), selected to have an average OFSTED<sup>1</sup> result and around 1000 pupils each, took part in the study. Schools 1 (inner city) and 2 (suburban) had some 1300 pupils each, and School 3 (rural) had 900 students. In total, 20 families from School 1, 40 families from School 2 and 39 families from School 3 opted out of the study. Children were asked to fill out a questionnaire in class and take questionnaires for their parent(s) or parent figure(s) to fill out at home. Therefore, both parent figures (where applicable) were asked to take part in the study. If parents had more than one child in the school, they were asked to complete the questionnaire with their oldest child in the school in mind. All questionnaires were anonymous

<sup>1</sup>OFSTED (Office for Standards in Education) is a non-ministerial UK government department, set up on 1 September 1992, whose main aim is to help improve the quality and standards of education and childcare through independent inspection and regulation, and provide advice to the Secretary of State. Schools are normally inspected on a 6-year cycle. A team of inspectors led by a Registered Inspector spends a few days in the school observing lessons and speaking to teachers and pupils to gather evidence on how well the school is performing.

although parents who were willing to participate in a subsequent interview were asked to give their names and contact details. In all, 2218 children and 1091 parents (of whom 452 were fathers) returned questionnaires. Of those 452 fathers, 369 were biological and resident, 34 biological and non-resident and 32 were stepfathers. Seven father figures had missing data on their relationship to the study child and were, subsequently, excluded from the analysis. Also excluded from the analysis were 10 social fathers (such as grandfathers, foster fathers and 'others'). Although the initial aim was to include a group of non-stepfather social fathers to compare with stepfathers, biological resident fathers and biological non-resident fathers, this group of 10 social fathers was both small and very heterogeneous, and was therefore omitted from the analysis. These 435 fathers were the study sample. In all, 9.4% of fathers reported that they did not work, 22.5% that their highest educational qualification was university degree, 7% that their children received free school meals and 77.2% that they owned their home. Their mean age was 44.43 (range: 28–74, SD = 7.08) years. In total, 328 were White British, six were White Irish, three White and Black Caribbean, one White and Black African, 11 any other White, five African, six Caribbean, two any other Black, 41 Indian, four Pakistani, six Bangladeshi, four Chinese, seven any other Asian, three any other Mixed and six any other ethnic group. There were no White and Asian fathers in the sample, and two fathers had missing data on ethnic group membership. In all, 171 (40.5%) fathers sent their children to the suburban school of the study, 37.4% to the rural school and 22% to the inner city school. A total of 263 (61.3%) fathers reported on their involvement with their sons and 166 with their daughters, and 40.5% agreed to give their contact details for the second (qualitative) part of the project.

## Measures

### Children's psychological adjustment

Fathers assessed their children's emotional and behavioural well-being with the Strengths and Difficulties Questionnaire (SDQ), a 25-item 3-point (ranging from 0 to 2) scale measuring four difficulties (hyperactivity, emotional symptoms, conduct problems and peer problems), as well as prosocial behaviour (Goodman 1994, 1997). Each subscale had five items such as 'constantly fidgeting or squirming' (hyperactivity), 'many worries, often seems worried' (emotional symptoms), 'steals from home, school or elsewhere' (conduct problems), 'rather solitary, tends to play alone' (peer problems) and 'helpful if

someone is hurt, upset or feeling ill' (prosocial behaviour). All five scales were reliable (Cronbach's alphas were 0.74, 0.70, 0.63, 0.60 and 0.74 respectively). The total difficulties scale (computed by summing the scores for hyperactivity, emotional symptoms, conduct problems and peer problems) was also reliable (Cronbach's alpha was 0.84). With a theoretical range of 0–40 for total difficulties and 0–10 for prosocial behaviour, the fathers in the sample gave scores ranging 0–29 and 0–10 respectively. Cut-offs scores for the borderline/abnormal range were 16+ for total difficulties, 6+ for emotional symptoms, 4+ for conduct problems, 6+ for hyperactivity, 4+ for peer problems, whereas the borderline/abnormal range for prosocial behaviour was 0–5 (<http://www.sdqinfo.com>).

In all, 21.8% of the children were assessed to be in the borderline/abnormal range for emotional symptoms, 25% for conduct problems, 20.2% for hyperactivity, 25.1% for peer problems and 16.9% for prosocial behaviour. In all, 21.8% were in the borderline/abnormal range for total difficulties. Published 'caseness' definitions state that approximately 10% of scores from a child and adolescent community sample should be in the abnormal band and that a further 10% should be in the borderline band for the total and each of the subscale categories (<http://www.sdqinfo.com>). Therefore, the adolescents in this community sample were not at higher risk of possible psychiatric disorder than would be expected.

### Fathers' involvement

Fathers' involvement was measured with Hawkins and colleagues' (2002) Inventory of Father Involvement (IFI), modified to be suitable for use with British participants. Hawkins *et al.* used Erikson's developmental theory in their work on how fathering can promote generativity among adult men. IFI taps behavioural, cognitive, affective and moral/ethical dimensions of fathering, and is applicable for fathers in both married and unmarried or divorced household structures. Fathers were asked to think of their experiences as parents over the past 12 months and rate on 26 items how good a job (ranging from 1 'very poor' to 5 'excellent') they did in bringing the study child up. The scale was composed of nine subscales (sample items are in parentheses): Discipline and Teaching Responsibility ('disciplining him/her'), School Encouragement ('encouraging him/her to succeed in school'), Mother Support ('cooperating with his/her other parent in bringing him/her up'), Providing ('accepting responsibility for his/her financial support'), Time and Talking Together ('spending time talking with him/her when he/she wants to talk about something'), Praise and Affection ('praising him/her for something he/she has done well'),

Developing Talents and Future Concerns ('encouraging him/her to develop his/her talents'), Reading and Homework Support ('encouraging him/her to read'), and Attentiveness ['attending events he/she takes part in (sports, school events)']. All scales were reliable (Cronbach's alphas were 0.81, 0.88, 0.83, 0.79, 0.83, 0.84, 0.83, 0.74 and 0.78 respectively), as was the overall Inventory (Cronbach's alpha was 0.95). All subscales had three items, except for Providing which had two. With a theoretical range of 26–130, the fathers in the sample gave themselves scores ranging from 42 to 130.

### Contextual and structural factors

The contextual and structural factors that were included in the study were children's sex and age as well as fathers' report of free school meals receipt (to tap socio-economic disadvantage), number of children under age 21 years living in the household (to tap sibship size) and fathers' educational attainment (ranging from 0 'no qualifications' to 4 'university degree').

### Fathers' psychological distress

The General Health Questionnaire 12 (GHQ12), a 12-item 4-point scale (Goldberg 1978; Goldberg & Williams 1988) with items such as 'lost much sleep over worry', was used to measure fathers' psychological distress. With a theoretical range of 0–36 for the GHQ12, the sample's scores ranged from 0 to 35. Cronbach's alpha was 0.91.

### Inter-parental conflict

Inter-parental conflict was assessed with nine items (measured in 5-point scales) from the Parenting Alliance Inventory (Abidin & Brunner 1995) which 'assesses the degree to which parents believe they have a sound working relationship with their child's other parent' (Abidin & Brunner 1995, p. 31). With a theoretical range of 9–45 for the inter-parental conflict scale, the sample's scores ranged from 9 to 38. Cronbach's alpha was 0.80.

### Data analysis

Differences at the bivariate level between the three groups of fathers (biological resident fathers, biological non-resident fathers and stepfathers) were explored by Kruskal-Wallis tests. Multiple linear regressions were subsequently carried out to investigate the effects of father's relationship to the child (biological resident father, biological non-resident father, or stepfather) and father's involvement in child's emotional and

behavioural well-being controlling for other factors. Father's relationship to the child was transformed into dummy variables. The results of multicollinearity checks showed that the Variance Inflation Factor values for all variables were well below the common cut-off threshold of 10, which suggests that multicollinearity did not unduly influence the least squares estimates.

## Results

Table 1 shows the descriptive statistics for the three groups of father figures. Generally speaking of the three groups of fathers, non-resident biological fathers tended to report the lowest involvement levels, and stepfathers the highest children's maladjustment levels, especially with regard to externalizing behaviour problems. In particular, compared with both resident biological fathers and non-resident biological fathers, stepfathers reported higher levels of conduct problems, hyperactivity and total difficulties in their children. Compared with both stepfathers and resident biological fathers, non-resident biological fathers reported higher levels of conflict and psychological distress, and lower discipline and teaching responsibility, school encouragement, mother support, financial responsibility and attentiveness. Interestingly, but perhaps not unexpectedly, it was the stepfathers rather than the non-resident biological fathers who reported the lowest levels of praise.

To explore the effects of fathers' biology status, residence and involvement in children's emotional and behavioural well-being after adjustment for other factors, multiple linear regression analyses were carried out with children's SDQ scales scores as the dependent variables. As can be seen in Table 2, even after controlling for family's socio-economic disadvantage, sibship size, children's sex, children's age, fathers' GHQ score, fathers' educational attainment, fathers' biology and residence status, and inter-parental conflict, fathers' involvement was negatively related to children's hyperactivity and total difficulties, and positively related to children's prosocial behaviour. Compared with resident biological fathers, stepfathers were more likely to report conduct problems and hyperactivity, and to give higher total difficulties scores to their children. In terms of effect sizes, although fathers' involvement did not predict children's internalizing behaviour problems, it was a powerful predictor of both total difficulties and prosocial behaviour, and was particularly powerful in predicting hyperactivity symptoms.

## Discussion

This study explored the role of fathers' involvement in children's psychological adjustment in adolescence. It showed that,

**Table 1.** Descriptive statistics: mean differences in the study's non-categorical variables between resident biological fathers, non-resident biological fathers and stepfathers

Variable	Resident biological fathers (means, SD ranks)	Non-resident biological fathers (means, SD, ranks)	Stepfathers (means, SD, ranks)	Kruskal-Wallis chi square (d.f.)
1. Children's prosocial behaviour score (range 0–10; M = 7.50, SD = 2.20)	7.59, 2.15, 208.76	7.55, 1.77, 192.23	6.48, 2.91, 164.27	4.29 (2)
2. Children's total difficulties score (range 0–29; M = 8.89, SD = 6.08)	8.50, 6.05, 178.51	9.52, 5.00, 208.24	12.78, 6.16, 256.69	14.49 (2)***
3. Children's difficulties: emotional symptoms (range 0–10; M = 1.92, SD = 2.07)	1.87, 2.03, 202.75	1.79, 1.87, 202.03	2.63, 2.65, 234.18	2.084 (2)
4. Children's difficulties: conduct problems (range 0–10; M = 1.68, SD = 1.70)	1.56, 1.68, 197.39	2.00, 1.70, 231.81	2.70, 1.66, 285.80	17.72 (2)***
5. Children's difficulties: hyperactivity (range 0–10; M = 3.53, SD = 2.45)	3.28, 2.39, 195.68	4.27, 1.93, 255.48	5.61, 2.46, 302.69	28,19 (2)***
6. Children's difficulties: peer problems (range 0–10; M = 1.74, SD = 1.81)	1.72, 1.82, 199.93	1.68, 1.85, 196.16	2.11, 1.75, 233.93	2.41 (2)
7. Fathers' educational attainment (range 0–4; M = 1.92, SD = 1.42)	1.95, 1.43, 216.32	1.84, 1.35, 210.33	1.65, 1.38, 190.56	1.34 (2)
8. Number of children under age 21 in the family (range 0–5; M = 2.14; SD = 0.90)	2.20, .78, 218.10	1.18, 1.29, 117.85	2.52, 1.12, 248.27	27.32 (2)***
9. Children's age (range 11–18; M = 13.53, SD = 1.73)	13.55, 1.77, 214.44	13.45, 1.64, 210.02	13.44, 1.34, 213.09	0.04 (2)
10. Inter-parental conflict (range 9–38; M = 15.57, SD = 6.12)	14.68, 5.23, 182.29	24.39, 7.01, 326.39	16.17, 7.03, 198.69	46.84 (2)***
11. Fathers' General Health Questionnaire score (range 0–35; M = 11.66, SD = 5.78)	11.33, 5.61, 200.25	15.33, 7.06, 281.11	11.58, 5.01, 211.00	13.88 (2)***
12. Fathers' overall involvement (range 42–130; M = 103.62, SD = 15.22)	104.99, 14.42, 195.07	92.50, 16.28, 113.62	99.56, 17.99, 165.28	16.78 (2)***
13. Fathers' involvement: discipline and teaching responsibility (range 3–15; M = 11.44, SD = 2.10)	11.56, 2.03, 220.03	9.97, 2.27, 133.85	11.57, 2.27, 222.05	15.35 (2)***
14. Fathers' involvement: school encouragement (range 3–15; M = 12.14, SD = 2.29)	12.36, 2.10, 220.68	10.53, 2.61, 133.78	11.31, 3.15, 182.02	18.23 (2)***
15. Fathers' involvement: mother support (range 3–15; M = 12.07, SD = 2.45)	12.18, 2.35, 214.79	10.15, 2.96, 128.88	12.29, 2.08, 216.50	16.29 (2)***
16. Fathers' involvement: providing (range 2–10; M = 9.04, SD = 1.28)	9.15, 1.15, 222.20	7.74, 1.88, 115.44	9.13, 1.20, 219.79	28.46 (2)***
17. Fathers' involvement: time and talking together (range 5–15; M = 11.61, SD = 2.26)	11.67, 2.25, 216.02	11.24, 2.17, 194.53	11.33, 2.44, 196.88	1.51 (2)
18. Fathers' involvement: praise and affection (range 5–15; M = 12.18, SD = 2.19)	12.32, 2.12, 221.23	11.94, 1.70, 196.63	10.71, 2.91, 155.31	9.15 (2)*
19. Fathers' involvement: developing talents and future concerns (range 3–15; M = 12.04, SD = 2.36)	12.22, 2.23, 219.44	11.32, 2.40, 176.46	10.73, 3.22, 163.30	9.17 (2)*
20. Fathers' involvement: reading and homework support (range 3–15; M = 11.22, SD = 2.51)	11.43, 2.40, 216.71	10.21, 2.12, 149.24	9.90, 3.51, 162.00	14.34 (2)***
21. Fathers' involvement: attentiveness (range 3–15; M = 12.07, SD = 2.38)	12.28, 2.19, 219.54	9.91, 3.14, 121.73	11.94, 2.54, 211.00	19.32 (2)***

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .

even after controlling for known risk factors, fathers' involvement was negatively related to children's hyperactivity and total difficulties, positively related to children's prosocial behaviour, but non-significantly related to children's peer problems, conduct problems and emotional symptoms. The father figure's biology and residence status was also important. Although non-resident biological fathers were as likely as resident biological

fathers to report difficult and prosocial behaviour in their children, stepfathers compared with resident biological fathers were more likely to report total difficulties and externalizing behaviour problems (hyperactivity and conduct problems) in their children even after adjusting for controls. The only factor that was consistently related to child outcomes in this study was inter-parental conflict. Both the absence of a biological father

**Table 2.** Linear (unstandardized regression coefficients with 95% CI and standardized regression coefficients) regression analyses results predicting father-reported children's emotional and behavioural well-being

	<b>Prosocial behaviour (n = 307)</b>	<b>Total difficulties (n = 288)</b>	<b>Emotional symptoms (n = 307)</b>	<b>Conduct problems (n = 311)</b>	<b>Hyperactivity (n = 312)</b>	<b>Peer problems (n = 307)</b>
Predictors	b (95% CI); $\beta$	b (95% CI); $\beta$	b (95% CI); $\beta$	b (95% CI); $\beta$	b (95% CI); $\beta$	b (95% CI); $\beta$
Constant	5.85 (2.94; 8.76)	10.81 (2.17; 19.44)	1.08 (-1.90; 4.06)	1.54 (-0.79; 3.87)	7.83 (4.56; 11.11)	1.59 (-1.16; 4.33)
Free school meals (1 vs. -1)	0.25 (-0.20; 0.70); 0.06	0.16 (-1.15; 1.46); 0.01	-0.06 (-0.52; 0.40); -0.02	-0.04 (-0.40; 0.32); -0.01	0.02 (-0.48; 0.53); 0.01	0.28 (-0.15; 0.70); 0.08
Father's educational attainment (0-4)	0.08 (-0.08; 0.25); 0.06	-0.63** (-1.10; -0.15); -0.15	-0.18* (-0.35; -0.02); -0.13	-0.17* (-0.29; -0.04); -0.14	-0.16 (-0.34; 0.02); -0.09	-0.09 (-0.25; 0.06); -0.07
Number of children under age 21 in the household (0-5)	-0.15 (-0.42; 0.12); -0.06	0.17 (-0.61; 0.96); 0.03	0.09 (-0.18; 0.36); 0.04	0.12 (-0.09; 0.33); 0.06	0.00 (-0.29; 0.29); 0.00	-0.07 (-0.32; 0.17); -0.04
Child's age (11-18)	-0.03 (-0.16; 0.11); -0.02	0.05 (-0.34; 0.45); 0.02	-0.03 (-0.17; 0.10); -0.03	0.02 (-0.08; 0.13); 0.03	-0.01 (-0.15; 0.14); -0.00	0.04 (-0.09; 0.17); 0.04
Female child (1 vs. -1)	0.46*** (0.23; 0.69); 21	-0.69* (-1.37; 0.01); -0.11	0.27* (0.04; 0.50); 0.13	-0.11 (-0.29; 0.07); -0.07	-0.53*** (-0.78; -0.28); -0.21	-0.20 (-0.41; 0.02); -0.10
Father's GHQ score (0-35)	-0.03 (-0.07; 0.01); -0.08	0.16	0.18** (0.05; 0.31); 0.16	0.06** (0.02; 0.10); 0.08	0.03 (-0.01; 0.06); 0.06	0.02 (-0.02; 0.07); 0.03 (-0.01; 0.08); 0.10
Inter-parental conflict (9-38)	-0.05* (-0.09; -0.01); -0.14	0.22*** (0.08; 0.35); 0.21	0.05* (0.01; 0.10); 0.15	0.07*** (0.04; 0.11); 0.25	0.06* (0.01; 0.11); 0.14	0.02 (-0.02; 0.06); 0.07
Stepfather (1 vs. -1)	-0.43 (-0.89; -0.03); -0.10	1.75* (0.38; 3.11); 0.14	0.22 (-0.26; 0.71); 0.05	0.53** (0.17; 0.90); 0.16	0.92*** (0.41; 1.43); 0.19	0.12 (-0.31; 0.55); 0.03
Non-resident biological father (1 vs. -1)	0.28 (-0.21; 0.76); 0.07	-0.91 (-2.34; 0.52); -0.08	-0.41 (-0.90; 0.09); -0.10	-0.16 (-0.55; 0.23); -0.05	0.08 (-0.46; 0.62); 0.02	-0.28 (-0.74; 0.19); -0.08
Father's overall involvement (42-130)	0.03*** (0.02; 0.05); 0.24	-0.06* (-0.11; -0.01); -0.15	-0.00 (-0.02; 0.02); -0.02	-0.01 (-0.03; 0.00); -0.11	-0.04*** (-0.06; -0.02); -0.25	-0.01 (-0.02; 0.01); -0.06
Model summary	$R^2_{adj} = 0.15$ ; $F_{10,296} = 6.41$ ***	$R^2_{adj} = 0.15$ ; $F_{10,277} = 6.01$ ***	$R^2_{adj} = 0.05$ ; $F_{10,296} = 2.75$ **	$R^2_{adj} = 0.12$ ; $F_{10,300} = 5.40$ ***	$R^2_{adj} = 0.19$ ; $F_{10,301} = 8.46$ ***	$R^2_{adj} = 0.02$ ; $F_{10,296} = 1.56$

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .  
GHQ, General Health Questionnaire.

absence effect and the presence of a powerful inter-parental conflict effect are in line with previous research: although a great deal of research in the 1970s and 1980s examined the father absence hypothesis, most scholars in the area agree that the Amato and Keith's (1991) meta-analysis found little evidence in support of that hypothesis but abundant evidence to support the deleterious role of inter-parental conflict in children's psychological outcomes.

In addition, this study showed, also in line with previous research, that fathering was more strongly correlated with externalizing than internalizing behaviour problems in children. Enns and colleagues (2002), for example, had shown that fathers' overprotection and authoritarianism conferred a reduced risk of externalizing disorders in adult males, and earlier Sturgess and colleagues (2001) that closeness to fathers was negatively related to young children's externalizing but not internalizing problems.

Explaining why stepfathers were, even after controlling for other factors, more likely than resident biological fathers to report adjustment difficulties, and in particular externalizing behaviour problems, in their children is more difficult. Whether this reflects stepfathers' low tolerance levels, as sociobiologists would argue or, conversely, biological fathers' complacency, or whether this is due to pre-existing predispositions of children in families which separate and restructure, to the effects of these multiple family changes or to these children's higher exposure to parental risk factors, is, given the data available and the study design, unclear.

The findings of the study should be seen in light of its limitations, however. First, the data are cross-sectional and so, as mentioned above, causality claims cannot be made. It is not possible, for instance, to know whether fathers' involvement predates and contributes to adolescents' behaviour problems, or whether adolescents' behaviour problems contribute to lowered involvement in fathers. Second, this study investigated links between fathers' involvement and adolescents' psychological adjustment and so the findings may not be applicable to different children's ages, different dimensions of fathering or different child adjustment domains. Third, the amount of variance in children's emotional and behavioural well-being explained by the variables in the regression models was generally modest, ranging from 2% (peer problems) to 19% (hyperactivity), and effect sizes were in general small or medium, although they were in line with previous studies (e.g. Enns *et al.* 2002). Fourth, mothers' involvement was not controlled for. Fifth, the measures used in this study were all based on father reports. Fathers reported both on their involvement and on their children's emotional and behaviour problems, and so these findings might

be attributed to reporting bias (De Los Reyes & Kazdin 2005). □ Shared method variance might be a particular problem in this study as it is possible that fathers who reported high involvement levels would be likely to under-report emotional and behaviour problems in children. Conversely, a child's 'easy' behaviour could be seen by the father as proof that he must have been involved with that child even if he had not. In other words, establishing theoretically convincing links with concurrent father-reported children's behaviour is even harder with fathers' self-reported involvement than it is with other fathering dimensions, such as attitudes to child-rearing, for instance. Related to this, it is possible, taking an evolutionary theory stance, that biological fathers would under-report and stepfathers would over-report their children's adjustment problems, particularly externalizing behaviour problems, and that all three groups of fathers would be particularly involved with their children in order to complete the study questionnaire in the first place. Finally, the average age of the children was 13 years, a time by which most daughters have entered puberty and most sons have not. As noted earlier, Youniss and Smollar (1985) indicated changes in girls' relationships with their fathers in adolescence. This would be exacerbated by whether children have entered puberty. A larger sample could examine the effect of pubertal status on fathers' perceptions of their children. Despite these limitations, however, this study showed that fathers' involvement was negatively associated with children's total difficulties (mainly because it was so strongly related to low hyperactivity), and positively associated with children's prosocial behaviour.

In conclusion, this study showed that fathers who report being involved with their children also report their children to be psychologically well-adjusted. It also showed that compared with biological fathers stepfathers are more likely to report behaviour problems in their children. Supporting children in stepfather families and supporting fathers might be an effective way to promote adolescents' psychological well-being.

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