

Maternal and infant health in the perinatal period: the father's role

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I. Trends in Father-Involvement

Clear increases in fathers' involvement in housework and childcare are emerging in Britain (O'Brien & Shemilt, 2003), as elsewhere in the developed world.¹ In the UK:

- Fathers' care of infants and young children rose 800% between 1975 and 1997, from 15 minutes to two hours on the average working day – at double the rate of mothers' (Fisher, McCulloch & Gershuny, 1999).
- Fathers in two-parent families carry out an average of 25% of the family's childcare related activities during the week, and one-third at weekends, with higher absolute and relative levels (one third) where both parents work full-time² (EOC, 2003).
- The pace of change seems to be increasing: between 2002 and 2005 the percentage of new fathers in the UK working flexitime to spend more time with their infants rose from 11% to 31% (Smeaton & Marsh, 2006).

Nor is Britain the 'fatherless society' it is so often said to be

- At the time of their birth, 85% of babies live with both their parents, and two thirds of the rest have parents who consider themselves a couple, or say they are 'good friends'. Only 1 baby in 20 is born to parents who describe themselves as 'not in a relationship' – and, even among these, 25% of the fathers are still visiting mother and infant 9 months later (Kiernan & Smith, 2003.)
- While 1 in 4 children are affected by their parents' separation by age 16, today children and their non-resident fathers often see a lot or each other. One study found that only 10% lose touch completely (Maclean & Eekelaar, 1997).

Notes

1. Similar increases are found in the US (Bianchi et al, 2006) and Australia (Russell et al, 1999)
2. It is worth remembering that 'full-time' working mothers tend to work considerably fewer hours than 'full-time' working fathers, and that they also tend to work closer to home – so commuting times are usually shorter.

2. Why involve expectant/new fathers?

Fathers are available and receptive

Almost all fathers are present at their children's births (see FATHERS AT THE BIRTH, below). In addition, fathers, like mothers, are particularly open to giving and receiving information, advice and support at this time (Lupton & Barclay, 1997; Lewis, 1986) and to benefit from this. For example:

- UK researchers testing recruitment methods for obtaining a sample of fathers found face-to-face recruitment of fathers on the postnatal ward generating the highest return rate of any method (76%), with even postal recruitment via postnatal wards generating a return rate of 31% (Sherr et al, 2006).
- The health behaviour of many expectant fathers needs to be addressed, and this should be done as routine in engagement with them by maternity services: a US study found that 49.3% smoked; 30.4% had engaged recently in recent hazardous drinking; 27.5% had very low physical activity levels; 94.9% had an at-risk fruit/vegetable intake; and 42% a weight-related health risk (Everett et al, 2006 – no exactly comparable UK data, but likely to be similar³).

Reviewing fathers' health behaviour during pregnancy, educating them alongside mothers during this period, and encouraging joint decision making, seem likely to yield the greatest net impact on family health.

Fathers may undertake more infant care

Engaging with fathers in the perinatal period may encourage them to carry out more infant caretaking. This generally improves the quality of their parenting and leads to better outcomes for mothers and infants. For example:

- Fathers who have participated in baby-care courses take on more care of their babies than fathers who have not: such fathers keep closer to their babies, engage in more face-to-face interaction with them, smile at, look at, and talk to them more (Nickel & Kocher, 1987).
- Fathers who undertake a lot of care bond more quickly with their infants and are likely to enjoy fatherhood more (Barclay & Lupton, 1999).
- The caretaking experience appears to facilitate paternal responsiveness (Donate-Bartfield & Passman, 1985; Zelazo et al, 1977).
- Greater father involvement in infant care and other household tasks is correlated with lower parenting stress and depression in mothers (for review, see Fisher et al, 2006).
- When fathers spend more time in childcare activities, they are more likely to engage in supportive interactions with their children (Almeida et al, 2001).⁴
- More father involvement is correlated with greater paternal sensitivity; and greater paternal sensitivity is associated with more firm, and less harsh, parenting (Burchell, 2006).⁵

Men can be as good at taking care of infants as women: women are not 'natural' experts. For example:

- Men are not less sensitive to babies' distress than women. Although they may 'signal' their reactions less obviously (e.g. in facial expressions), their measured responses (heart rate, skin moisture etc.) are the same (Fathers Direct, 2000, Note 14).
- Left in charge of babies, men and women develop skills at the same rate (Fathers Direct, 2000, Note 15).

Greater father involvement early on can result in more conflict between partners initially. However, this can be 'good conflict' in that couples can feel more connected, mothers tend to be more satisfied and issues can be resolved (Cowan & Cowan, 2000).

High levels of father involvement early on are also important because this sets the scene for continuing high levels of involvement.

- Fathers' engagement with their infants and toddlers shows considerable stability over the first three years (Aldous et al, 1998; Beitel & Parke, 1998).
- There is moderate stability in levels of caretaking evident over 14 years (Hwang & Lamb, 1997).
- Father-involvement at age seven is associated with continuing involvement throughout childhood and adolescence (Flouri & Buchanan, 2003).
- Early solo caretaking is associated with continued caretaking when children are older (Aldous et al, 1998) and with grandchildren (Pruett, 2000).

Fathers are important to mothers - including teenage mothers

The interdependence of fathers' and mothers' experience and adjustment during the transition to parenthood is striking.

- A woman's fear of vaginal delivery is strongly associated with her dissatisfaction with the couple relationship (Saisto et al, 2001).
- Tarkka (2000) found that one of three predictors of a young mother's positive childbirth experience was her perception of a positive attitude toward the pregnancy by the baby's father.
- For both mother and father, the ability to cope with the demands of a new baby depends on the quality of the relationship between them (Berman & Pederson, 1987).
- Women who enjoy the full support of their partners are more closely bonded to their children, and more responsive and sensitive to their needs (Feiring, 1976).
- Mothers report that fathers are their main source of emotional support after the birth, and that their ability to cope with the new baby is related to their partner's ability to do this (Fathers Direct, 2000).
- The quality of mothering provided to an infant has been linked with supports the mother receives from her partner; and the quality of the relationship between the parents has been shown to predict how both mother and father nurture and respond to their children's needs (for review, see Guterman & Lee, 2005).

- This is also true for teenage mothers: a young mother's perception of support from her baby's father correlates with a range of positive attachment behaviours by her (Bloom, 1998). And teenage mothers with positive partner support are less rejecting and punitive towards their children (Unger & Wandersman, 1988).
- Conversely, among expectant teenage mothers, lack of perceived support by the father of their baby is a key correlate of high scores on the Child Abuse Potential Inventory (Zelenko et al, 2001); and a decreasing pattern of involvement by the young father is significantly associated with young mothers' increased parenting stress (Kalil et al, 2005).

There are positive spin-offs from high father involvement in terms of their children's relationships with each other, and with their mothers.

- Firstborns with highly involved fathers are more positive and accepting towards their second-born sibling (Dunn & Kendrick, 1982).
- Frequent care-taking of a firstborn by the father is associated with a large increase in the firstborn's positive behaviours toward the mother, after the birth of a second sibling (Kojima et al, 2005).

Fathers affect the health of mothers and infants

Smoking

Parental smoking is a significant issue both for the Department of Health and for Government as a whole. Both pre- and post-natal smoking in both women and men are key concerns for infant wellbeing.

Fathers are more likely to smoke than mothers – and their smoking behaviour impacts on whether mothers smoke, and on how much mothers smoke. In a study of smoking households in the Midlands (infants mean age 10 weeks):

- Two-thirds contained a smoking father – many more than contained a smoking mother (Blackburn et al, 2005a).
- Tobacco consumption was higher where both parents smoked or where only the father smoked (Blackburn et al, 2005a).
- Many of the fathers wanted to stop smoking: more than 50% had tried to cut down; 20% had tried to quit; and more than 75% had tried not to smoke in the house. However, less than 5% had succeeded in quitting; and only 60% had achieved not smoking at home (Blackburn et al, 2005b).
- Astonishingly, most of the fathers were not asked about their smoking habits either during the pregnancy or after the birth, let alone given even the most basic information to encourage them to quit (Blackburn et al, 2005b).⁶

What impact does fathers' smoking have on infants?

- Smoking by fathers causes sperm damage, reduces semen quality and reduces responsiveness to fertility treatment (British Medical Association, 2004).
- A high quality case control study in Northern California found that exposure to paternal preconception smoking alone (as well as in combination with postnatal passive smoking) is highly likely to be important in the risk of childhood leukemia (Chang et al, 2006).
- Heavy paternal smoking is associated with increased risk of early pregnancy loss (Venners et al, 2004), respiratory disease in infants and low birth-weight (Health Education Authority, 1999).
- Paternal smoking is directly linked with SIDS - and also indirectly, via low birth-weight (Health Education Authority, 1999).
- Where both parents smoke, the baby is eight times more likely to die of SIDS (Health Education Authority, 1999).
- A substantial study in New Zealand identified father's smoking as a risk factor for breastfeeding cessation at four months postpartum, independently of mother's smoking and other factors (McLeod et al, 2002).

- Heavy smoking by either father or mother is associated with fussiness/colic in newborns. In a Dutch national sample, excessive infant crying (which has a deleterious effect in parent infant bonding and couple satisfaction, and perceptions of which are the number one trigger for Shaken Baby Syndrome - Barr, 2006) was found to occur more frequently among infants whose fathers (but not mothers) smoked 15+ cigarettes daily (Reijneveld et al, 2005).⁷

Fathers have, at best, incomplete knowledge of the effects of passive smoking on infants: only 33% are aware that it contributes to Sudden Infant Death Syndrome (SIDS); 24% that it contributes to ear infections; 65% that it is related to babies' developing asthma, bronchitis and pneumonia; and 75% that it contributes to coughing/sore throats in babies (Moffat & Stanton, 2005).

In the US, paediatricians are being urged to address fathers' smoking, not only because of the impact on their health but because of the impact on children's learning and parents' work-attendance: children from smoking households miss an extra six days of school a year (Dake et al, 2006).

Fathers and mothers' smoking behaviours are linked:

- An expectant father's continuing to smoke is associated with his partner's continuing smoking (for review, see Bottorff et al, 2006).

- A longitudinal UK survey found that smoking by a pregnant woman's partner was by far the biggest predictor of her current smoking status (Penn & Owen, 2002).
- A review of nine cohort studies published in international peer-reviewed journals found 'partner's smoking habit' to be one of the key determinants of a pregnant woman's smoking. Most of the other determinants of pregnant women's smoking were SES related (Lu et al, 2004).⁸

- An expectant mother's quitting is consistently associated with her partner's provision of support for her quitting – and by his quitting himself (for review, see McBride et al, 2004).⁹
- Similarly, an expectant father's quitting is strongly associated with his partner's quitting (Lu et al, 2004),

- Although mothers' influence on fathers' quitting is small (for review, see Bottorff et al, 2006), mothers who have quit themselves have the strongest influence (Ratner et al, 2001).

For many fathers, not smoking in the home may be a more achievable target than smoking cessation (Blackburn et al, 2005b). So how effective are mothers in protecting their infants from the father's smoking? Results are mixed. A Dutch study found that among the 65% of mothers who prevented passive smoking to some extent, success was linked with the mother's self-efficacy in asking others not to smoke (Crone et al, 2001). This suggests that the most vulnerable women are likely to be the least effective in protecting their infants from passive smoking.

What indicators are there, that fatherhood may prove an incentive for men to reduce their smoking, smoke outside the house – or even quit? Most men, and in particular healthy men from lower socioeconomic classes, are poorly motivated by existing smoking cessation programmes. However, 'significant life events' are a time of increased receptiveness to smoking cessation influences (Stanton et al, 2004). Fatherhood seems to be one of these:

- Expectant and new fathers experience discomfort with their smoking (Bottorff et al, 2006)
- The desire to be a caring, participative father increases men's ambivalence about smoking and precipitates changes in smoking (Westmaas et al, 2002)
- Men who become fathers are more likely than other men to have quit in the two years preceding childbirth, and to be still abstinent one year thereafter (Brenner & Mielck, 1993).
- Becoming a father and preparing to become a father are associated with spontaneous quitting (Brenner & Mielck, 1993); and multiple quit attempts are common prior to smoking cessation (Prochaska & Goldstein, 1991).
- The discontinuities in everyday life associated with the postnatal period provide opportunities for establishing new routines (Bottorff et al, 2006)

Smoking interventions with expectant and new fathers are already yielding results.

- A randomized controlled trial of a multi component intervention with expectant fathers in the US found that, at six months post partum, almost twice as many in the intervention group compared with the controls (16.5% v. 9.3%) had stopped smoking. However, the number needed to be treated to get one male smoker to quit was 13 to 14 (Stanton et al, 2004).
- Almost exactly the same treatment/quit ratio was found in a Hong Kong study, with – again – almost double the quit rate in the intervention group. The intervention group, in that case, had received three-session telephone-based smoking cessation counseling (Abdullah et al, 2005).
- In another randomized controlled study of an intervention designed to reduce smoking in expectant fathers, addressing the mothers alone resulted in 5% of the fathers quitting, while addressing the father directly resulted in a 15% quit rate (McBride et al, 2004).

The barriers to fathers' quitting/smoking reduction, and the factors that may encourage it, are beginning to be understood:

- An Australian focus group identified a belief among expectant, smoker, fathers that the stress caused in their family through smoking withdrawal/quitting would be more detrimental to the unborn baby than continued smoking (Wakefield et al, 1998).

- In another Australian study, in multivariate logistic regression analyses 'feeling close to the unborn baby' and a 'high level of knowledge about the effects of passive smoking on baby' were associated with early quit attempts by fathers (Moffatt & Stanton 2005).
- Moffatt & Stanton (2005) also found 'high level of knowledge about the effects of passive smoking on baby' and 'confidence in ability to quit' associated with smoking cessation.
- Fathers' not smoking in the home is linked to both their caring and their economic circumstances, so other interventions (e.g. supporting them into further education, training or employment) may have spinoffs in reducing fathers' smoking in the home (Blackburn et al, 2005b).
- Masculinity Issues may need to be addressed: identification of smoking with masculinity precludes some fathers from viewing partner's tobacco reduction or cessation as an opportunity for their own cessation (Bottorff et al, 2006).

It seems possible that social and cultural shifts that redefine masculinity and male roles in relation to childcare and family life may support positive changes in health behaviour among fathers, including their smoking practices (Bottorff et al, 2006).

Fathers affect the health of mothers and infants

Alcohol

Pre-natal alcohol use by mothers is an increasing concern, with Fetal Alcohol Spectrum Disorder (FASD) the most common known cause of cognitive disability (NIAAA, 1987). Focus on the dangers of expectant mothers' drinking has resulted in fathers' drinking being ignored and under-researched – even though:

- Up to 75% of children born with FASD have biological fathers who are heavy drinkers and alcoholics (Cicero, 1994).
- Paternal alcohol use in animals has been found to be associated with genetic conditions, birth defects, malformations, and other problems (Gearing et al, 2005).
- Alcohol dependent fathers tend to sire girls with a strong tendency to ADHD (Knopik et al, 2005).
- Heavy alcohol use by fathers is associated with double the risk of insecure attachments between mother and infant (Eiden & Leonard, 1996).
- Paternal drinking is a risk factor for maternal drinking (Leonhardson & Loudenburg, 2003): expectant mothers are almost four times more likely to have consumed alcohol, and over twice as likely to have used drugs, if the father has drug and alcohol related problems (Teitler, 2001).
- Male partners who are opposed to the mother's intention to stop drinking influence her inability to reduce alcohol consumption (Astley et al, 2000).

And the father's drinking also directly affects his infant:

- Alcoholic fathers are less sensitive and more negative towards their infants, and their infants are less securely attached (Eiden et al, 2002; Eiden & Leonard 2000).
- Fathers' alcoholism is associated with their greater irritation with their infant and aggression towards the mother (Leonard et al, 2002; Eiden & Leonard, 2000).

What potential is there for improving children's outcomes by engaging with fathers' substance misuse – and to what extent is this occurring?

- When alcoholic fathers enter a treatment programme, the simple fact of their receiving treatment is associated with improvements in their children's adjustment; and a clinically significant reduction in child problems is found with fathers' alcoholism recovery (Andreas et al, 2006).
- CARAT (HM Prison Service drug and alcohol services) has been given a brief to involve families of prisoners undertaking treatment programmes and associated rehabilitation work as part of the through-care element with emphasis on prisoner resettlement – and this is to be focused on fathers as well as on mothers (Clarke et al, 2005).

Fathers affect the health of mothers and infants

Relationship conflict and domestic violence¹⁰

The father's drinking (and other substance misuse) is also linked with relationship conflict, which can lead some expectant mothers to drink more (Frank et al, 2002). Men's rates of alcohol and illicit drug use are also strongly correlated with violence (Tuten et al, 2004) and aggression towards their partners (Eiden & Leonard, 2000; Leonard et al, 2002).

Research suggests, tentatively, that UK rates of domestic abuse in late pregnancy and immediately post partum are likely to be around 5-6% of pregnant women.¹¹ Although there is no hard evidence that domestic abuse is more likely to occur in pregnancy than at any other time, or that it usually becomes worse during pregnancy (for review, see Martin et al, 2004), previous abuse victims have been found to suffer, during pregnancy, a greater risk of increased psychological aggression and sexual coercion from their partners (Martin et al, 2004) and of becoming homicide victims (Campbell et al, 1998).

The impact of intimate partner violence on expectant mothers is serious.

- A number of studies¹² have found domestic abuse during, and just before, pregnancy associated with a range of obstetric complications including increased risk of high blood pressure, vaginal bleeding, severe nausea, kidney/urinary tract infections, antepartum haemorrhage, intrauterine growth restriction, preterm (and term) low birth- and perinatal death.

- Domestic abuse also correlates with low weight gain by the mother, which reduces birth weight more than smoking does (Kearney et al, 2004).
- There is an emerging consensus from the obstetric literature that ante-natal maternal stress is associated with low birth weight and preterm birth (for review, see O'Keane & Scott, 2005) and with children at higher risk of behavioural problems, anxiety, and cognitive and emotional difficulties. It is now known that maternal stress can transfer to the unborn baby, who can continue to show negative effects long after birth (O'Connor et al, 2005). A key determinant of ante-natal maternal stress is relationship with partner (Van den Bergh et al, 2005).

This last suggests the importance of assessing and addressing a range of attitudes and behaviours by expectant fathers – not only domestic abuse, but also mental health, substance use, hostility, infidelity, rejection of the pregnancy, and so on.

Fathers affect the health of mothers and infants: Breastfeeding

What influence do fathers have on breastfeeding?

- A number of studies have found fathers influencing mothers' decisions to initiate and/or sustain breastfeeding (for review, see Scott et al, 2001).
- Support from the infant's father through active participation in the breastfeeding decision, together with a positive attitude by him and knowledge about the benefits of breastfeeding, have been shown to have a strong influence on the initiation and duration of breastfeeding (Swanson & Power, 2005; Arora et al, 2000; Bromberg & Darby, 1997).
- Low-income women in particular suggest that male support is crucial in their decision to breastfeed (Schmidt & Sigman-Grant, 2000).

It is worth noting that mothers' perceptions of their partners' attitudes to breastfeeding - on which researchers often rely - may not be accurate: when the men are interviewed directly, their attitudes can be more positive than expected and reported by their partners (Freed et al, 1993).

Fathers' actual beliefs about breastfeeding and their level of knowledge and understanding – not just mothers' perceptions of these - are significant.

- Fathers' beliefs that breastfeeding is best for baby, and that it helps with bonding and protects baby from disease, are associated with mothers' intention to breastfeed. Conversely, fathers' beliefs that breastfeeding is bad for the breasts, makes breasts ugly and interferes with sex are associated with mothers' bottle-feeding intentions (Freed et al, 1993).
- Barriers to fathers' supporting breastfeeding include disapproval of women breastfeeding in public or in front of non-family members, and lack of knowledge about the health benefits and nutritional superiority of breastfeeding. Such disapproval and lack of knowledge are far more common in fathers than in mothers (Shaker et al, 2004; Pollock et al, 2002; Shepherd et al, 2000).

Can fathers' views and understandings be changed? Most of the intervention studies are small, but the indications are positive.

- A randomized controlled trial of a two-hour pre-natal intervention with fathers consisting of infant care information as well as encouragement for fathers to advocate for breastfeeding and assist their partner, resulted in 74% v. 41% breastfeeding initiation among women whose partners had attended the class, in comparison with the controls (Wolfberg et al, 2004)

- In Italy Piscane et al (2005) found that teaching fathers how to prevent and manage the most common lactation difficulties had a marked, positive impact on breastfeeding continuation. Only 15% of mothers whose partners had been simply told about the benefits of breastfeeding were still breastfeeding at six months; but when the men were individually coached for just 40 minutes on managing common problems (such as pain and discomfort, fear that baby isn't 'getting enough' and breastfeeding-issues when mum returns to work) the percentage of mothers still breastfeeding at six months was 25%. The impact was particularly strong among women who had reported difficulties with lactation (4.5% v. 24%).
 - An established workplace intervention in the US offers fathers either two 45-minute group classes (which include observing positioning and attachment) or a one-hour, one-on-one coaching session (which includes use and care of a breast pump). A book on breastfeeding and other 'take away' handouts are supplied. The fathers are also invited to attend a men-only fathering session as part of an ante-natal course for couples. All the interventions result in higher-than-average breastfeeding rates, with the outcomes from the fathering session the most impressive. When fathers had attended the fathering session as well as the breastfeeding instruction,, 69% of the mothers were still breastfeeding at six months post partum, compared with a national average of 21% (Cohen et al, 2002).
 - Working with the couple relationship may pay dividends, since relationship satisfaction is associated with more paternal breastfeeding support (Falceto et al, 2004) and relationship distress is predictive of early breastfeeding cessation, although only at a marginal level of significance (Sullivan et al, 2004).
 - Since high levels of maternal responsibility for household tasks and infant care are significant predictors of breastfeeding cessation, supporting fathers to take responsibility in these areas may contribute significantly to breastfeeding maintenance (Sullivan et al, 2004).
- Working with the couple rather than simply with the mother in breastfeeding education is important. A desire for the father to have opportunities to be close to the baby can be a factor in some mothers opting to cease breastfeeding; and an approach that focuses exclusively on the mother-child dyad can result in some fathers feeling excluded, jealous and resentful to the detriment of breastfeeding success (Jordan & Wall, 1993).

Fathers affect the health of mothers and infants: [Post-natal depression](#)

[The father's role in maternal depression](#)

The evidence that impaired maternal mental health, including depression, in the post partum period, has adverse effects on the infant socially emotionally, behaviourally and cognitively is extensive (e.g. Kurstjens & Wolke, 2001; Cummings & Davies, 1994; Hossain et al, 1994). Amelioration of the mother's psychological distress after the first year does not necessarily improve the outcome for the child (Murray et al, 2003).

Mothers' depression is associated with own personality and with perinatal, infant-related and partner factors. These last include a poor relationship with the father, his being unavailable at the time of the baby's birth and his provision of what is perceived by the mother to be insufficient emotional or practical support. This can include low participation in infant care. Other risk factors include his holding rigid sex-role expectations, or being critical, coercive or violent (for review, see Fisher et al, 2006).

The father's functioning as a support person is key, since depressed new mothers receive more support from their partner than from any other individual, including medical staff (Holopainen, 2002). Can intervening with these men prove fruitful? Few interventions have been rigorously evaluated, and sample sizes are small. However, indications are positive.

- A randomized controlled trial in Canada found that where depressed women's partners participated in 4 out of 7 psycho-educational visits, the women displayed a significant decrease in depressive symptoms and other psychiatric conditions. Interestingly, when only the women (and not their partners) received the intervention the general health of the depressed women's partners deteriorated. This effect was not found where the men were included in the intervention (Misri et al, 2000).
- A shorter length of hospital stay among women with pre/postpartal psychiatric disorders is strongly and positively correlated with supportiveness by their (male) partners. However, only 30% of these men are categorized by the researchers as supportive (Grube, 2004).
- A brief, inexpensive US intervention (one prenatal session, in separate gender groups focusing on psychosocial issues related to becoming first-time parents) was associated with reduced distress in some mothers at six weeks postpartum. The key factor seemed to be their perception of an increased level of awareness in the men as to how they were experiencing the early postpartum weeks (Matthey et al, 2004).

Fathers' own depression

Fathers' own depression is also an issue for concern, not least because of its potential to exacerbate maternal depression. Although pregnancy is a period of greater stress for fathers than the post-birth period (Huang & Warner, 2005; Condon et al, 2004), fathers' rates of depression are higher after the birth than before it (Huang & Warner, 2005).

As is the case with maternal depression, estimates of paternal depression range widely depending on the characteristics of the sample and the measure of depression used.

- Depression rates of 7–30% have been identified in new fathers (for review, see Huang & Warner, 2005).
- In Denmark new fathers' depression rates are double the national average for men in the same age group (Madsen et al, 2006).
- First time fathers are particularly prone to depression (Cowan et al, 1991) with mild to moderate depression most likely (Soliday et al, 1999).
- Fatherhood does not seem to precipitate postpartum mental disorders necessitating hospital admission or outpatient contacts: although, for women, the risk of this is increased for several months after childbirth, among new fathers no increase in severe mental disorders is found (Munk-Olsen et al, 2006).

What factors are linked with paternal depression at this time?

- The experience of a general lack of support, with the quality of the couple relationship, including disagreement about the pregnancy and perceived lack of supportiveness from the mother particularly central (Huang & Warner, 2005; Dudley et al, 2001; Matthey et al, 2000).
- Infant-related problems (Dudley et al, 2001).
- The father's neuroticism and substance abuse/dependence (Huang & Warner, 2005).
- The mother's personality difficulties, unresolved past events in her life and her current mental health status (Huang & Warner, 2005), most particularly her depression.¹³

Low income new fathers, including young fathers are particularly vulnerable to depression, seemingly due to interacting factors. In a low income African American sample, 56% of new fathers were found to have 'depressive symptoms indicating cause for clinical concern'. Correlates included resource challenges, transportation and permanent housing difficulties; problems with alcohol and drugs; health problems/disability; and a criminal conviction history (Anderson et al, 2005).

In this study, and in opposition to findings elsewhere, higher levels of social support were associated with greater depressive symptoms, leading researchers to speculate that for low-income men the perceived costs of reciprocity may have deterred them from utilizing available support; or that peer groups may have influenced their alcohol or drug use, or placed demands on their resources (Anderson et al, 2005).

The more tenuous the relationship with the mother, the more likely it is that the father will be depressed. Interacting factors and selection effects would seem to explain this in part, but the circumstances of the pregnancy are also likely to be relevant. Rates of paternal depression in one recent US study were 6.6% (married fathers), 8.7% (cohabiting), 11.9% (romantically involved but not living together); and, among the fathers who were described as 'not involved' with the mother¹⁴ 19.9% were depressed (Huang & Warner, 2005).

Fathers who feel supported by their partners in finding their own ways of caring for their infants are likely to develop a strong connection to their babies, and are also unlikely to develop depression (Cowan & Cowan, 1988). Participation in a fathers' group has been found to assist men's coping with their partner's postnatal depression (Davey et al, 2006). However, group interventions may suit only particular types of fathers (Ghate et al, 2000).

Early Years Services often succeed in engaging fathers (particularly young fathers) via sports. Generally this tactic is regarded as a 'hook' activity to draw the men into involvement with other services (Fathers Direct, 2002-06). In fact, involving fathers in sports activities should perhaps be considered an end in itself, not least because of the potential of regular aerobic exercise for improving mood.

[The impact of fathers' depression on infants and children](#)

A recent, substantial, UK/US study, which controlled for mothers' depression, found high levels of emotional and behavioural problems in children (particularly boys) aged 3.5 years associated with earlier depression in their fathers (Ramchandani et al, 2005). The mechanisms by which this occurs are not fully understood. Both direct and indirect effects are likely. For example:

- Fathers' depression puts at risk the quality of the relationship between the parents (Phares, 1997); and better couple relationship quality has been linked to lower infant fussiness scores (Dave et al, 2005).
- High psychological well being in fathers is positively associated with their sensitivity as parents (Broom, 1994).

- Fathers' depression (like mothers') limits their ability to parent effectively (Huang & Warner, 2005).
- A 3-year study of first-time fathers in Australia found stress negatively affecting fathers' attachments to their infants (Buist et al, 2003).
- In the US, a study of Head Start families found that fathers with higher levels of depression had less involvement with their children (Roggman et al, 2002).
- When both parents are depressed and the depressed father spends medium/high amounts of time caring for his infant, his depression has been found to exacerbate the negative effects of mothers' depression (Mezulis et al, 2004).
- A pilot study to assess the relationship between paternal mood and infant temperament found higher paternal depression scores, more traditional attitudes towards fathering and increased recent life events related to higher infant fussiness scores (Dave et al, 2005).

However, McElwain & Volling (1999) found depressed fathers less intrusive than non-depressed fathers when observed playing with their 12-month-olds; and Field et al (1999) reported that depressed fathers did not interact with their infants more negatively than non-depressed fathers did.

Father as 'buffer'

When, and how, can fathers' behaviour 'buffer' the negative effects of mothers' depression on their babies?

- Fathers have unusually high amounts of interaction with insecure-avoidant infant girls – the group with whom mothers interact least of all (Fagot & Kavenagh, 1993).¹⁵
 - A small (n: 25 families) observational study found that in most families where mothers suffered from persistent depressive mood, their infants had established joyful relationships with their fathers, and infant-father attachments were secure. (Edhborg et al, 2003). Similar findings are reported by Hossain et al (1994).
 - Infants of chronically depressed mothers have been found to learn in response to fathers' (but not mothers' or other women's) infant-directed speech (Kaplan et al, 2004).
 - Where mothers are depressed post-natally fathers' self-reported parenting styles interact with the amount of time they spend caring for their infants to moderate the longitudinal effects of the mothers' depression on children's internalising behaviours in childhood (Mezulis et al, 2004).
 - Fathers' support can shield the infants of chronically depressed mothers from negative outcomes (Field, 1998), promoting greater maternal responsiveness to their infants (Jackson, 1999) and minimizing power-assertive maternal child-reading attitudes (Brunelli et al, 1995).¹⁶
- A study that followed a large group of U.S. children over 10 years, found that although mothers' depression was related to escalating child behavior problems, this was not the case among children who said their fathers were highly involved in their lives (Chang et al, 2007).
 - Women who, as children, experienced maternal rejection and/or had a mother who experienced depressive symptoms are at elevated risk of developing depression in the post-natal period. However, if their relationship with their father is remembered as positive and 'accepting': then they are much less likely to develop depressive symptoms postnatally (Crockenberg & Leerkes, 2003)

When mothers are especially vulnerable, it would seem wise for child and family professionals to pay particular attention to supporting positive and substantial father-child interaction. However, a proactive and tactful approach may be needed: where new mothers' feelings of autonomy are low (Grossman et al, 1988) or they are depressed or lack confidence as mothers (Lupton & Barclay, 1997) they tend actively to exclude fathers, and the fathers may hang back, fearing their interference could exacerbate the situation (Lupton & Barclay, 1997; Lewis, 1986).

The finding that even after a mother's recovery from post natal depression, adverse patterns of interaction with her child can continue (Cox et al, 1987) indicates the importance of including fathers in any interventions in both the short and longer term.

Notes

3. The 30.4% US figure on hazardous drinking chimes with ONS figures of hazardous drinking prevalence of 30%+ among British males below age 60 (Velleman, 2004, p.185).
4. They are also more likely to have conflictual interactions.
5. One must not assume that high father involvement leads to greater sensitivity. It may be that more sensitive fathers are drawn to greater involvement; or that an easy-to-manage child draws fathers in. However it is highly likely that as fathers become more involved with their children, they become more sensitive to their needs as, through higher involvement, they come to know them better (e.g. Ninio & Rinott, 1988).
6. As one father put it: 'Being a father, you don't get anything at the hospital. They don't say "well, if you smoke have a read of this". There's nothing in that respect'.
7. Note controlling for SES and other potentially confounding variables was not substantial in this study.
8. Interestingly, a partner's socio-economic status (SES) has been found to be only weakly related to a woman's continued smoking (Monden et al, 2003) so does not appear to be a mediating factor in her failure to quit.
9. Sixty-five percent of pregnant smokers have been advised to give up by their partners; 25% found their comments useful (Health Education Authority, 1999).
10. For an extended discussion of domestic violence and fatherhood see the DOMESTICALLY VIOLENT FATHERS section of the main Fatherhood Institute Research Summary, available at <http://www.fatherhoodinstitute.org/index.php?id=0&CID=586>
11. In a key study, Bacchus et al (2004) sampled 892 pregnant women (aged 16 and over) attending maternity services of Guy's and St Thomas' NHS Hospital Trust in South London. Midwives routinely enquired about domestic abuse at booking, 34 weeks of gestation and postpartum (within 10 days) using a series of structured questions. The prevalence of domestic abuse (physical, sexual or emotional) in pregnancy was 1.8% at booking, 5.8% at 34 weeks of gestation and 5.0% at 10 days postpartum – implying an overall prevalence of 2.5% domestic abuse (physical/sexual) during pregnancy. However, because during the recruitment phase not every woman attending the clinic was questioned, the prevalence is likely to be an under-estimate.
12. e.g. Silverman et al, 2006; Coker et al, 2004; Janssen et al, 2003; Bacchus et al, 2003.
13. An integrated review of 20 research studies found 24-50% of new fathers with depressed partners affected by depression themselves (Goodman, 2004). A recent study not only recorded more depressive symptoms among such men, but also more aggression and non specific psychological impairment, as well as higher rates of depressive disorder, non specific psychological problems and problem fatigue. New fathers whose partners were depressed were also more likely to have three or more co-morbid psychological disturbances. On measures of anxiety and alcohol use there was no difference between men whose partners were depressed and men whose partners weren't (Roberts et al, 2006).
14. As mentioned before, 1 in 20 couples in the UK contains a father who, at the time of the birth, is described as being 'not in a relationship' with their baby's mother (Kiernan & Smith, 2003)
15. These researchers hypothesise that the elevated risk of behaviour problems found in sons of postnatally depressed mothers may be linked to the fact that both parents tend to interact less with insecurely attached infant boys.
16. However, where family problems are extreme and maternal warmth and acceptance very low, a positive father-child relationship may not prove sufficient 'buffer' on its own (Jorm et al, 2003) particularly where children are very young (Mezulis et al, 2004).

3. Information and support for fathers

Pre-conception

There is growing evidence of the impact of fathers' pre-conception/prenatal behaviour and circumstances on birth and child outcomes, including smoking and alcohol use (see previous sections) and exposure to solvents and pesticides.¹⁷

There is also a growing understanding of fathers' genetic bequests to their children and the interaction of these with environmental factors. For example, studies have found correlates between advanced paternal age and adverse birth, infant and child outcomes, which are found to be particularly powerful among low-income men (Reichman & Teitler, 2006). However, a recent Canadian study which did not find this, did find that being a teenage father was associated with an increased risk of adverse pregnancy outcomes, including preterm birth, low birth weight and neonatal deaths. The researchers were confident that it was the father's age that was significant, since all the mothers in this sample were in their twenties (Chen et al, 2007).

Where timing of pregnancies is concerned, international family planning programmes have demonstrated the value and efficacy of engaging with males. Successful strategies described by Sternberg & Hubley (2004) include:

- Engaging with men as if they were caring partners, rather than irresponsible adversaries.
- Offering a brief counseling session to help them articulate their needs and doubts before attending medical consultation.
- Encouraging couples to seek services together.
- Building family planning 'modules' into programmes that address men in other contexts (e.g. including 'Family Management' in a 'Farm Management' programme in Honduras).
- Peer education.
- Engaging with community leaders (e.g. Muslim religious leaders in Gambia, to develop a programme on the connections between family planning and Islam).
- Workplace and community outreach and mass media approaches.

Behavioural outcomes have been less often evaluated, although programmes have increased contraceptive uptake, as well as uptake of ante-natal care by the men's partners. HIV/STI prevention programmes have been successful in altering men's high risk behaviours, including increasing condom use (Sternberg & Hubley, 2004).

Prenatal

The benefit of traditional ante-natal classes to mothers or fathers has been hard to demonstrate (Schmied et al, 1999); and fathers also express high levels of dissatisfaction with them (McElligott, 2001). In one study, one man in three wanted more information on nineteen subjects after antenatal classes were over (Singh & Newburn, 2000).

Nevertheless, fathers' attendance even at conventional pre-natal education has some demonstrable benefits:

- Fathers' attendance is associated with greater couple inter-dependence, which is a marker of the quality of the couple relationship (for review, see Diemer, 1997).
- Fathers who have attended undertake more housework and are more likely to utilize support (for review, see Diemer, 1997). This last is important as expectant fathers who receive emotional support have better physical and emotional health (Jones, 1988). This very probably translates into being 'easier to live with', and more supportive and positive. However, even here outcomes vary according to personality and other factors.¹⁸

Prenatal education specifically designed for fathers fares better:

- One study found such an intervention resulting in substantially greater likelihood of fathers' utilizing support, undertaking housework (both before and after the birth), being more likely to 'reason' with their partners, and reporting better couple relationships (Diemer, 1997).
- A brief, inexpensive US prenatal intervention (consisting of one prenatal session with parents in separate gender groups focusing on psychosocial issues of first-time parenthood) was associated with mothers' reporting greater satisfaction with the sharing of home and baby tasks post partum (Matthey et al, 2004).
- A randomized controlled trial of a prenatal intervention with low-income fathers (two sessions of factual information, practical skills training and bonding exercises) found substantially greater information-retention and parental sensitivity one month postpartum among the intervention compared with the control group (Pfannenstiel & Honig, 1995).
- A Canadian trial of antenatal classes with a special focus on changes in the marital relationship concluded that such classes may enhance marital adjustment post-birth (cited by Enkin et al, 2000, p.25).

Of particular importance for expectant fathers is the opportunity to reflect on their own experiences of being parented, and on their own needs and feelings. Such opportunities can be provided in ante-natal education, or in private conversation. Encouraging couples to have these conversations may be very beneficial. Expectant fathers who have a good understanding of their own needs and feelings have been shown to form especially close attachments with their infants (Steele et al, 1996).

The ultrasound scan is now recognised as an important plank in preparation for parenthood, and the health professionals' manner of assisting and supporting parents at the scan is significant. Fathers should be strongly encouraged to attend (Ekalin et al, 2004).

In the US relationship enhancement programmes developed for pre-marital education have been adapted for use in the perinatal period (Glade et al, 2005).¹⁹

Fathers at birth

Almost all fathers now attend the births of their children:

- In their analysis of the Millennium Cohort data, Kiernan & Smith (2003) found that among the 85% of couples living at the same address when their babies were born, 93% of the fathers were present at the birth (as were almost half of the 15% of fathers who were not living with their babies' mothers at that time).²⁰
- Another study, with a smaller and less disadvantaged sample, returned even higher figures, with 98% of fathers at the birth (National Health Service, 2005).
- The Millennium Cohort Study also found considerable variation in fathers' birth attendance by geographic area of residence, social class, and ethnicity. In the most economically advantaged wards the rate is 91%, but in the most disadvantaged wards the rate is only 80.5%. This falls to 67% in areas of high minority ethnic population. Similarly, whilst 95% of men in professional socio-economic groups attend the birth of their child, the rate is only 81% for men in semi-routine and routine occupations (Dex & Joshi, 2005). Father attendance at a child's birth therefore appears to be one indicator of social disadvantage, alongside many others, with potential implications for both family functioning and child development over the longer term.

Enkin et al (2000) note that fathers today have an expanded role in the birth process: they are expected to reinforce what has been taught in childbirth education, act as advocates for the mother, and fill gaps in care. Yet, as a small-scale qualitative study carried out for the Department of Health discovered – fathers, while ‘enthusiastic’ about being involved, were left relatively unprepared for the birth and its aftermath by limited previous contact with maternity services (Dartnell et al, 2005).

Does the father's presence at the birth make a positive difference to the mother? Today, so few fathers are not present that this is difficult to measure. However:

- Earlier studies found that women whose husbands were present and supportive during labour were less distressed (Anderson, & Standley, 1976; Henneborn & Cogan, 1975).
- More recently, Gibbins & Thomson (2001) found that labouring women benefit when they feel ‘in control’ of the birth process – and that a key component in this is experiencing support from their partner during the birth.
- Support during delivery provided by a ‘close support person’ (who can be, and often is, the baby's father) creates a more positive childbirth experience for the mother, with a shorter duration of delivery and less pain experienced (for review, see Tarkka, 2000).
- Enkin et al (1995) report that when labour partners (including fathers) know a lot about pain control, women have shorter labours and are less likely to have epidurals.

- This support has also been found to be conducive to a more positive attitude by the mother towards motherhood (Mercer et al, 1984).

Recent research from China differentiated between types of support, noting that level of perceived partner-provided emotional support did not result in positive maternal outcomes, while the perceived level of practical support did, including a strong correlation between duration of partners' presence during labour and women's ratings of perceived practical support by their partners (Ip, 2000).

However, a stressed birth partner can be counterproductive: stress, like fear, can contaminate – and maternal stress can slow down labour. Fathers' stress levels are often very high at key points during the birthing process (Johnson, 2002). Keogh et al (2006) found caesarian mothers' post-operative pain strongly linked to their fear-experiences during labour, and these were mediated by the level of their birth partner's fear.

The implications for preparing fathers well for the birth are clear.

- Fathers who have been prepared well to participate productively in the labour process tend to be more active participants, and their partners' birth-experiences tend to be better (for review, see Diemer, 1997).
- Even where fathers have been only minimally prepared, studies repeatedly show high levels of satisfaction post partum for both mothers and fathers in sharing the experience of labour and birth (Chan & Paterson-Brown, 2002).²¹

- Fathers' presence has been shown to help compensate for poor quality obstetric services. Klein et al (1981) found fathers five times more likely to touch their partner during labour and delivery than other support figures; and the women rated the fathers' presence more helpful than that of the nurses.
- Spiby et al (1999) found labouring women generally disappointed by the level of midwife involvement while their partner's involvement much more nearly met their expectations – a personal experience also reported by Llewellyn Smith (2006).
- Obstetricians greatly underestimate the psychological boost fathers give to their partners during delivery – as well as the practical support the men provide during labour, and afterwards (Hayward & Chalmers, 1990).

Claims about long term negative effects of fathers' attending the birth have been made, particularly on the couple's sexual relationship (e.g. Odent, 1999) but not substantiated through serious research. One well designed study showed that while negative perceptions of the birth-experience were correlated with depressive symptoms in fathers at six weeks postpartum, their effect was removed once pre-existing depressive symptoms were controlled for (Greenhalgh et al, 2000).

Does the father's presence at the birth pay off in greater involvement later?

- Birth attendance by fathers is not correlated with higher levels of involvement in, say, nappy changing; however birth attendance followed by extensive postpartum father-infant interaction in the hospital may stimulate such behaviour (Keller et al, 2004; Palkovitz, 1985).
- Moore & Kotelchuck (2004) found a significant correlation between fathers' attendance at the birth and subsequent involvement in monitoring infant health by participating in 'well child visits'.
- Kiernan (2006) compared the behaviour of non-resident fathers who had signed their baby's birth certificate with fathers who had not signed the birth certificate but had been present at their baby's birth. She found that though roughly equal numbers of both groups later moved in with their baby's mother, all other measures of involvement, except the payment of child support, were higher among the men who had attended the birth. Noting the many studies that have recorded the powerful impact on fathers of witnessing the births of their children, Kiernan comments: 'Our evidence suggests that this attachment exemplified through presence at the birth carries through into infancy even among non-resident fathers'.

Postnatal

It is important to provide fathers with information and support after the birth of their children especially in high-risk families. A recent review of Shaken Baby Syndrome cases in one US jurisdiction reported 44% perpetrated by fathers and 20% by mothers' boyfriends, in contrast to 7% perpetrated by mothers (Sinal et al, 2000).

Is fathers' involvement with their infants affected by post natal interventions? Some early studies found that fathers who had attended baby-care courses (or who thought of themselves as more skilled) took on more care of their infants. However, other studies of short-term interventions found no influence (for review, see Lamb, 2004). Meanwhile:

- Fathers of caesarean babies usually undertake relatively high levels of infant care due to mothers' incapacity – and Pederson et al (1980) found them still engaged in higher levels of care 5 months on.
- Myers (1982) found fathers who had been shown how to conduct standardized assessments of their newborns (the Brazelton method) becoming more knowledgeable and more involved.
- Fathers taught the skills of caring for a newborn tend to be closer to their babies at the time and also later (Nickel & Kocker, 1987; McHale & Huston, 1984).

- When fathers of four-week-old infants were given a brief training in baby massage and the Burleigh Relaxation Bath technique with a particular emphasis on the father-infant relationship they were more involved with their infants than a comparison group of fathers two months on. Also, their infants greeted their fathers with more eye contact, with smiling, vocalising, reaching and orienting responses, and showed less avoidance behaviours (Scholz & Samuels, 1992).
- One study found 4 out of 5 fathers of six-month-olds saying they would probably have attended a 'how to care for your baby' session, if it had been offered in the first few weeks after the birth and as a continuation of the pre-birth training. Although when new fathers were actually offered such a session only 1 in 6 attended, the researchers felt this was a very positive result, since in that district nothing of that kind had ever been offered before (Matthey & Barnett, 1999)

Fathers of pre-term infants may have particularly high needs. These fathers reveal significantly greater stress and depression scores than fathers of full-term infants, and lower involvement rates (Rimmerman & Sheran, 2001); and, like the fathers (and mothers) of caesarian babies, use significantly more negative adjectives to describe their babies at six weeks of age (Greenhalg et al, 2000). However:

- Sullivan (1999) found that the sooner fathers held their pre-term infants the sooner they reported feelings of warmth and love for them.

- A programme comprising eight sessions shortly before discharge plus four home visits afterwards, found the fathers suffering significantly lower child-related, parent-related and total stress, twelve months on (Kaarsen et al, 2006).²²

And finally, the importance and value of engaging with the couple relationship is strongly indicated:

- Reduced couple satisfaction and relationship quality and increased conflict over the transition to parenthood are clear (for review, see Glade et al, 2005).
- Issues that may not be significant for couples who never have children may become significant once a baby is born: this has been shown to be the case with family-of-origin experiences and with conflicts that arise when partners have different approaches to parenting (Cowan, 1988; Lane et al, 1988).

Paternal establishment

As religious participation declines, including christenings and other ceremonies, fathers have few opportunities to make public their commitment to their children; and although secular 'naming' ceremonies are now possible, these are not widely promoted or used. Nor are fathers universally acknowledged in the hospital setting: babies are now often recorded under their mothers' names where parents are unmarried, even if the mother asks for the father's name to be used. As there is no duty on hospitals to record fathers' names, many do not do so (Fathers Direct, 2006b).

Birth registration by the father establishes paternity. Paternity recognition, and government support for it, can be interpreted as the child's right (UN Convention on the Rights of the Child - Article 7 [1]²³ and Article 8 [1] & [2]²⁴). Henshaw (2006) asserts that 'knowing and being acknowledged by both parents' is an important issue to children.

In the US, paternity establishment (particularly in hospital)²⁵ has proved a rewarding strategy, increasing the proportion of children receiving child support as well as levels of paternal contact and involvement (Fragile Families, 2005). Registration is voluntary, but mothers and couples are approached and the father encouraged to register.²⁶ Few refuse, once the benefits to them and to their child are explained.

In the State of Minnesota, paternity establishment among CSA cases (many of these are low income families, where couples may not live together and birth registration is likely to be at its lowest) is 96%.

This is mainly due to in-hospital registration (Minnesota Fathers and Families Network, 2006). In the UK, paternity establishment among CSA cases is only 75%.

In West Virginia it was discovered that the most significant person affecting whether a young man acknowledged he was the father was the midwife. The State implemented a training program for midwives on the importance of fatherhood and how to talk to young mothers and fathers. In four years the rate of paternity establishment went from under 18% to over 60% among low-income unmarried couples (Levine & Pitt, 1995) Since practice has varied around the country, national standards are now being recommended (Fragile Families, 2005).

Do fears about child support enforcement discourage fathers from signing their infants' birth certificates? Apparently not: in England and Wales rates of sole birth registration by mothers remained stable from 1991-2000, during which time the Child Support Agency was established and widely discussed (Macfarlane et al, 2005, p.7).

Notes

17. Fathers' pesticide exposure prior to conception predicts pre-term delivery (Hourani & Hilton, 2000).
18. Antenatal class attendance is connected with more positive feelings about the birth experience for some men; however, those who had seemed to 'block' distressing information during the classes had a more negative birth experience (Greenhalgh et al, 2000).
19. Useful topics for such courses include managing and resolving conflict; expectations, values and beliefs; commitment; forgiveness; friendship and fun; and managing fatigue and stress. Radical new approaches to working with low income couples are being tested (Glade et al, 2005).
20. Overall, this means that 86% of all fathers in this sample were at the birth.
21. Hayward & Chalmers (1990) suggest that these positive findings may be associated, in some cases, with the father's contribution as a general factotum on an understaffed labour ward.
22. The long-term outcomes of this intervention are currently being investigated.
23. Article 7 (1) 'The child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality and, as far as possible, the right to know and be cared for by his or her parents.'
24. Article 8 (1) 'States Parties undertake to respect the right of the child to preserve his or her identity, including nationality, name and family relations as recognized by law without unlawful interference.' (2) 'Where a child is illegally deprived of some or all of the elements of his or her identity, States Parties shall provide appropriate assistance and protection, with a view to speedily re-establishing his or her identity.'
25. Given the anxiety and exhilaration experienced around the birth, a public declaration of fatherhood within the hospital setting may have a particular emotional force. One US father described how, when filling out a form in the pediatrician's office, "I felt a jolt when I had to fill in the line that said 'Father's name'. I had all these visions about report cards and . . . permission forms and all these things - and I'm going to be the one signing where it says 'Father!'" (Cowan & Cowan, 2000, p.56).
26. See for example, practice in the State of Arizona: <http://www.supreme.state.az.us/dr/Text/Paternity.htm>

4. Fathers' impact on their children

A growing number of longitudinal investigations, together with studies reporting children's perceptions of their parents' influences, now provide valuable insight into patterns of fathers' influence over time; and are helping to build up a powerful picture of patterns of father-child closeness as crucial predictors of later adjustment, although patterns of influence remain to be explored in depth (Lamb & Lewis, 1985).

Infancy & pre-school

Although a vast array of studies points to mother-infant attachment security as more central to the positive and negative development of infants and young children:

- Infants' security of attachment with both mothers and fathers appears to be mutually influenced and interdependent.²⁷
- Infants of very highly involved fathers are generally more sociable and seem equally attached to both parents.²⁸
- Fathers often form independent attachments with their infants that promote their security.²⁹
- Infant-father attachment security may have unique effects – and may be more influential on occasion than mother-child attachment security.³⁰
- Infant-father attachment security may be affected by both the quantity and quality of the time fathers spend with their infants.³¹
- Better measures of infant-father security may be obtained by observing infant-father play than by conventional attachment-security testing. Measures of father-toddler play have been found to be more predictive than mother-infant attachment security of adjustment in adolescence.³²

How does early father involvement affect infants' and preschoolers' cognitive and social development? Here mothers' influence is again the more powerful.³³ But it is only a matter of degree: fathers' impact is important, and the earlier fathers become involved, the better.

- High quality (sensitive/supportive) and substantial father involvement from the month following birth is connected with a range of positive outcomes in babies and toddlers - from better language development to higher IQs.³⁴
- The value of supportive parenting of infants and toddlers by fathers is also found in low income families and across different racial groups.³⁵
- When fathers earn more and are better educated, the positive effects on their young children are marked; and fathers' higher income and better education are also predictive, as independent variables, of more positive mother-child interactions.³⁶
- Fathers' active care of 'difficult-to-raise' pre-schoolers is related to fewer problems in these children later (Aldous & Mulligan, 2002).
- Fathers' parenting style – like mothers' – matters a great deal and is sometimes the more powerful influence on young children's development.³⁷

- The quality of father-child interactions early on correlate with the quality of children's peer relationships later.³⁸

However, it must be remembered that when fathers' interactions with their infants and pre-schoolers are consistently negative, the impact is also very negative,³⁹ as is also found at later ages (see next page).

In later life. . .

A substantial research summary charting fathers' impact on their children through and beyond adolescence, and in a wide range of circumstances, including in separated and in highly vulnerable families, can be found at <http://www.fatherhoodinstitute.org/index.php?id=0&cid=586>

Here we summarise only some key findings.

'Good Enough' Fathers

A recent systematic review of studies which controlled for maternal involvement and gathered data from different independent sources, found 'positive' father involvement associated with a range of desirable outcomes for children and young people (Pleck & Masciadrelli, 2004). The positive outcomes include: better peer relationships; fewer behaviour problems; lower criminality and substance abuse; higher educational / occupational mobility relative to parents'; capacity for empathy; non-traditional attitudes to earning and childcare; more satisfying adult sexual partnerships; and higher self-esteem and life-satisfaction. Similarly, low levels of (positive) involvement are associated with a range of negative outcomes (for review, see Flouri, 2005).

However, the pathway into higher paternal involvement is crucial. Forced high paternal involvement, as through forced unemployment, does not usually bring with it the same benefits as greater paternal involvement through choice (O'Brien, 2004a). Agreement between parents as to the desirability of the involvement is also key (Ashley et al, 2006).

'Bad Dads'

Fathers' influence on children is important not just because it can be positive – but because it can be negative. So how can father involvement affect children in negative ways in the longer term?

- Studies show a range of negative developmental outcomes associated with fathers' (and father-figures') poor parenting or psychopathology (see Lloyd et al, 2003), substance misuse (Velleman, 2004, p.188) and abusive behaviour towards mothers (Jaffee et al, 1990).
- A 'dose effect' is found: worse behaviour by fathers tends to result in worse outcomes for children, as does more extensive contact with a father who is 'behaving badly' (Jaffee et al, 2003).
- Another kind of dose effect – the 'double dose' effect (Dunn et al, 2000) - is found where both parents' life histories / behaviour are negative (O'Brien, 2004b).
- Jaffee et al (2003) also note a 'double whammy' impact, where genetic and environmental risks converge.

It has, however, been pointed out that singling out fathers in this way distracts attention from the larger body of evidence that shows negative maternal influences equally in evidence (Leinonen et al, 2003).

No dad

It has often been argued that no father is better than a bad father. That can of course be true. However:

- Severing father-child relationships entirely, either actively or by default, can result in children demonising or idealising their fathers (Kraemer, 2005; Gorrell Barnes et al, 1998) or blaming themselves for their absence (Pryor & Rodgers, 2001).
- Furthermore, loss or attenuation of the relationship commonly causes children substantial distress, anger and self-doubt (Fortin et al, 2006; Laumann-Billings & Emery, 1998).
- Controlling for other factors, absent fatherhood has been shown negatively to affect children directly, for example, by contributing to their difficulties with peer relationships, including bullying (Parke et al, 2004; Berdondini & Smith, 1996); and indirectly, via increased maternal stress and reduced income (McLanahan, 1997; McLanahan & Teitler, 1999).
- Although in some cases removing the father improves the situation for children, their situation more often becomes worse, as is found for example when fathers enter prison (Guterman & Lee, 2005).

Notes

27. For review and discussion, see Guterman & Lee (2005).
28. Children of 'non-traditional fathers' (fathers who are very involved in caretaking) have infants who, at 12-14 months not only appear to interact equally with both parents but also interact comfortably with a 'stranger' as much in the presence of their father as their mother, and are generally more sociable with everyone – mother, father, 'stranger' (Frascarolo, 2004).
29. For review and discussion, see Guterman & Lee (2005).
30. For example, infant-father attachment security has been found to have a greater effect than infant-mother attachment security on child behaviour problems at ages 5 & 6 (Verscheuren & Marcoen, 1999).
31. The adaptation of 20-month-olds has been found to be promoted by both the quantity of paternal involvement, and its quality - i.e. sensitivity (Easterbrooks & Goldberg, 1984).

32. Grossmann et al (2002) found the security of infant-mother attachment the better predictor of children's feelings of security at ages 6 and 10. However, by age 10, fathers' sensitivity in free play at age 2 also predicted security. By age 16 years, only the measure of father-toddler play (and not the early parent-infant attachments) significantly predicted adjustment.
33. Mothers' more powerful influence is almost certainly related to their greater time spent with, and influence over the schedules of, infants and young children. A recent Australian study of fathers of six-month-olds found that 80% had no 'sole accessibility' time with their infants – i.e. were never in sole charge of them when not specifically interacting with them, at any point during an average week and weekend (Habib & Lancaster, 2005).
34. Controlling for mothers' behaviour, fathers' positive engagement in the month following birth has an independent association with infants' cognitive functioning at one year (Nugent, 1991). Early paternal stimulation is correlated with infant boys' mastery motivation (Yarrow et al, 1984); paternal sensitivity with both sexes' higher linguistic/cognitive capacities at 18 months; and paternal involvement with infants' sensorimotor development (Wachs et al, 1971) and with higher IQs at 12 months and 3 years (Yogman et al, 1995; Magill-Evans & Harrison, 1999).
35. Tamis-LeMonda et al (2004), observing a racially/ethnically diverse sample from the US National Head Start Evaluation Study, found fathers' and mothers' supportive parenting independently predicting children's outcomes, after covarying significant demographic factors. See also Roopnarine et al (2006).
36. Tamis-LeMonda et al (2004) found fathers' education and income uniquely associated with child measures – and fathers' education consistently predicted the quality of the mother-child engagements.
37. Roopnarine et al (2006), investigating a Caribbean immigrant sample of kindergarten children, found fathers' authoritarian parenting style negatively associated (and father-school contact positively associated) with kindergarten children's receptive skills, vocabulary and composite scores. The fathers' authoritative parenting style, combined with father-child academic interaction at home, was positively related to children's social behaviours. In all these studies, the mothers' contributions were controlled for; and, in fact, in the Roopnarine study fathers' parenting was found to carry the weight of influence over mothers' for facilitating both child academic skills and social behaviours. Situation can have an impact: because fathers spend less time with their young children they are less able to understand their marginally intelligible utterances and so tend to need to ask them to explain themselves. This can contribute to their language development (for discussion, see Flouri, 2005, p.85).
38. Physically playful, affectionate and socially engaging father-child interactions at age 3-4 predict later popularity with peers, particularly when fathers were low in directiveness and there was mutuality between father and child in making play suggestions and following each others' leads (Mize & Pettit, 1997).
39. When fathers display anger with their 3-5 year olds and engage in negative 'tit for tat' interactions with them, their children are later rated by teachers as more aggressive, less likely to 'share' and less 'accepted' by their peers (Carson & Parke, 1996; Isley et al, 1996 & 1999).

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It should be noted that while members of the Advisory Group provided valuable feedback, not every member agrees with every statement or interpretation of the research set out in this document. These represent the views of the Fatherhood Institute and must remain our sole responsibility.

The material in this research summary is extracted from the Fatherhood Institute's main research summary – *The Costs and Benefits of Active Fatherhood* – published in 2006. Some of the material has been updated. The main research summary is available at

<http://www.fatherhoodinstitute.org/index.php?id=0&cID=586>

References

- Abdullah, A.S.M., Mak, Y.W., Loke, A.Y., & Lam, T-H. (2005). Smoking cessation intervention in parents of young children: a randomised controlled trial. *Addiction*, 100, 1731-1740.
- Aldous, J., Mulligan, G.M, & Bjarnason T (1998). Fathering over time: what makes the difference? *Journal of Marriage and the Family*, 60, 809-820.
- Almeida, D. M., Wethington, E., & McDonald, D. A. (2001). Daily variation in paternal engagement and negative mood: implications for emotionally supportive and conflictual interactions. *Journal of Marriage and Family*, 63, 417-429.
- Anderson, B.J., & Standley, K. (1976). A methodology for observation of the childbirth experience. Paper presented at the meeting of the American Psychological Association, Washington, D.C.
- Anderson, E. A., Kohler, J.K., & Letiecq, B.L. (2005). Predictors of depression among low-income, nonresidential fathers. *Journal of Family Issues*, 26(5), 547-567.
- Andreas, J. B., Fals-Stewart, W., & O'Farrell, T.J. (2006). Does individual treatment for alcoholic fathers benefit their children? A longitudinal assessment. *Journal of Consulting and Clinical Psychology*, 74(1), 191-198.
- Arora, S., McJunkin, C., Wehrer, J., & Kuhn, P. (2000). Major factors influencing breastfeeding rates: mother's perception of father's attitude and milk supply. *Pediatrics*, 106(5). Available at: www.pediatrics.org/cgi/content/full/106/5/e67. Last accessed 26 August 2006.
- Ashley, C., Featherstone, B., Roskill, C., Ryan, M., & White, S. (2006). *Fathers Matter: research findings on fathers and their involvement with social care services*. London: Family Rights Group.
- Astley, S.J., Bailey, D., Talbot, C., Clarren, S.K. (2000). Fetal Alcohol Spectrum Disorder (FASD) primary prevention through FASD diagnosis: II. A comprehensive profile of 80 birth mothers of children with FASD. *Alcohol and Alcoholism*, 35(5), 509-519.
- Bacchus, L., Mezey, G., Bewley, S, & Haworth, A. (2004). Prevalence of domestic violence when midwives routinely enquire in pregnancy. *British Journal of Obstetrics and Gynaecology*, 111, 441-445.
- Barclay, L., & Lupton, D. (1999). The experiences of new fatherhood: a socio cultural analysis. *Journal of Advanced Nursing*, 29(4), 1013-20.
- Bacchus, L., Mezey, G., & Bewley, S. (2003). Domestic violence: prevalence in pregnant women and associations with physical and psychological health. *European Journal of Obstetrics and Gynaecology and Reproductive Biology*, 113, 6-11.
- Barr, R.G. (2006). Paper presented May 2006 in Vancouver at the second Provincial Symposium on Shaken Baby Syndrome. University of British Columbia.
- Beitel, A.H., & Parke, R.D. (1998). Paternal involvement in infancy: the role of maternal and paternal attitudes. *Journal of Family Psychology*, 12, 268-288.
- Berdondini, L., & Smith, P.K. (1996). Cohesion and power in the families of children involved in bully-victim problems at school: an Italian replication, *Journal of Family Therapy*, 18, 99-102.
- Berman, P., & Pederson, F., (eds). (1987). *Men's Transition to Parenthood*. Hillsdale, N.J.: Lawrence Erlbaum.
- Bianchi, S.M., Robinson, J.P., & Milkie, M.A. (2006). *Changing Rhythms of American Family Life*. New York: Russell Sage.
- Blackburn, C.M., Bonas, S., Spencer, N.J., Coe, C.J., Dolan, A., & Moy, R., (2005a). Parental smoking and passive smoking in infants: fathers matter too. *Health Education Research*, 20(2), 185-194.
- Blackburn, C.M., Bonas, S., Spencer, N.J., Dolan, A., Coe, C.J., & Moy, R. (2005b). Smoking behaviour change among fathers of new infants. *Social Science and Medicine*, 61(3), 517-526.
- Bloom, K.C. (1998). Perceived Relationship With the Father of the Baby and Maternal Attachment in Adolescents. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 27, 4, 420-428.
- Bottorff, J.L., Oliffe, J., Kalaw, C., Carey, J., & Mroz, L. (2006). Men's constructions of smoking in the context of women's tobacco reduction during pregnancy and postpartum. *Social Science and Medicine*, 62, 3096-3108.
- Brenner, J., & Mielck, A. (1993). Children's exposure to parental smoking in West Germany. *International Journal of Epidemiology*, 22(5), 818-823.
- British Medical Association (2004). Tobacco FactFile: Smoking and Reproductive Life. London: British Medical Association Tobacco Control Resource Centre. Report available at: <http://www.tobaccofactfile.org> (last accessed 25 November, 2006).
- Bromberg, B-YN., & Darby, L. (1997). Fathers and breastfeeding: a review of the literature. *Journal of Human Lactation*, (13), 45-50.
- Broom, B.L. (1994). Impact of marital quality and psychological well-being on parental sensitivity. *Nursing Research*, 43, 138-143.
- Brunelli, S.A., Wasserman, G.A., Rauh, V.A., Alvarado, L.E., & Caraballo, L.R. (1995). Mothers' reports of paternal support: associations with maternal child-rearing attitudes. *Merrill-Palmer Quarterly*, 41(2), 152-171.
- Buist, A., Morse, C.A., & Durkin, S. (2003). Men's adjustment to fatherhood: implications for obstetric health care. *Journal of Obstetrics, Gynecology & Neonatal Nursing*, 32, 172-80.
- Burchell, S.J. (2003). Quantity vs. quality: father-child relationships and children's social-emotional behavior. Paper presented at the biennial online meeting, SRCDC. Ann Arbor, MI: Society for Research in Child Development.
- Campbell, J.C., Soeken, K.L., McFarlane, J., & Parker, B. (1998). Risk factors for femicide among pregnant and nonpregnant battered women. In J.C. Campbell (ed.) *Empowering Survivors of Abuse: health care for battered women and their children*. Thousand Oaks, CA.: Sage.

- Carson, J.L., & Parke, R.D. (1996). Reciprocal negative affect in parent-child interactions and children's peer competency. *Child Development*, 67, 2217-2226.
- Chan, K. K. L., & Paterson-Brown, S. (2002). How do fathers feel after accompanying their partners in labour and delivery? *Journal of Obstetrics and Gynaecology*, 22(1), 11-15.
- Chang, J.J., Halpern, C.T., & Kaufman, J.S. (2007). Maternal Depressive Symptoms, Father's Involvement, and the Trajectories of Child Problem Behaviors in a US National Sample. *Archives of Pediatrics & Adolescent Medicine*, 161, 697-703.
- Chang, J.S., Selvin, S., Metayer, C., Crouse, V., Golembesky, A., & Buffler, P.A. (2006). Parental smoking and the risk of childhood leukemia. *American Journal of Epidemiology*, 163(12), 1091-1100.
- Chen, X-K Wen, S.W., Krewski, D., Fleming, N.Q., & Walker, M.C. (2007). Paternal age and adverse birth outcomes: teenager or 40+, who is at risk? *Human Reproduction* Advanced Access Published 6 February 2007. Available at: <http://humrep.oxfordjournals.org/cgi/reprint/dem403v1> Last accessed: 3 April 2007
- Cicero, T.J. (1994). Effects of paternal exposure to alcohol on offspring development. *Alcohol Health & Research World*, 18(1), 37-41; Abel, E.L. (1983). *Marijuana, Tobacco, Alcohol, and Reproduction*. Boca Raton, FL: CRC Press.
- Clarke, L., O'Brien, M., Day, R., Godwin, H., Connolly, J., & Van Leeson, T. (2005). Fathering behind bars in English prisons: imprisoned fathers' identity and contact with their children. *Fathering*, 3(3), 221-242.
- Cohen, R., Lange, L., & Slusser, W. (2002). A description of a male-focused breastfeeding promotion corporate lactation program. *Journal of Human Lactation*, 18(1), 61-65.
- Coker, A.L., Sanderson, M., & Dong, B. (2004). Partner violence during pregnancy and risk of adverse pregnancy outcomes. *Paediatric and Perinatal Epidemiology*, 18(4), 260-269.
- Condon, J.T., Boyce, P., & Corkindale, C.J. (2004). The First-Time Fathers Study: a prospective study of the mental health and wellbeing of men during the transition to parenthood. *Australian and New Zealand Journal of Psychiatry*, 38(1-2), 56-64.
- Cowan, C.P. (1988). Working with men becoming fathers: the impact of a couples group intervention. In P. Bronstein & C.P. Cowan (eds) *Fatherhood Today: Men's changing Role in the Family*. New York: Wiley.
- Cowan, C.P., & Cowan, P.A. (2000). *When Partners Become Parents*. Mahwah, NJ: Lawrence Erlbaum Assoc.
- Cowan, C.P., Cowan, P.A., Heming, G., & Miller, N. (1991). Becoming a family: marriage, parenting and child development. In P.A. Cowan & E.M. Hetherington (eds.), *Family Transitions: Advances in Family Research*. Hillsdale, NJ: Lawrence Erlbaum
- Cowan, P.A. (1988b). Becoming a father: a time of change, an opportunity for development. In P. Bronstein & C.P. Cowan (eds.), *Fatherhood Today: Men's changing Role in the Family*. New York: Wiley.
- Cowan, P.A., & Cowan, C.P. (1988). Changes in marriage during the transition to parenthood: must we blame the baby? In G.Y. Michaels & W.A. Goldberg (eds.), *The Transition to Parenthood: Current Theory and Research*. Cambridge: Cambridge University Press.
- Cox, A.D., Puckering, C., Pound, A., & Mills, M. (1987). The impact of maternal depression in young children. *Journal of Child Psychology and Psychiatry*, 28(6), 917-928.
- Crockenberg, S., & Leerkes, E. (2003). Developmental history, partner relationships, and infant reactivity as predictors of postpartum depression and maternal sensitivity. *Journal of Family Psychology*, 17, 1-14.
- Crone, M.R., Reijneveld, S.A., Burgmeijer, R.J.F., & Hirasig, R.A. (2001). Factors that influence passive smoking in infancy: a study among mothers of newborn babies in the Netherlands. *Preventive Medicine*, 32, 209-217.
- Cummings, E.M., & Davies, P.T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry*, 35, 73-112.
- Dake, J.A., Price, J.H., & Jordan, T.R. (2006). Pediatricians' practices regarding smoking cessation among parents of their patients. *American Journal of Health Behaviour*, 30(5), 503-512.
- Dartnall, L., Ganguly, N., & Batterham, J. (2005). *Access to Maternity Services*. Research Report. London: COI and Department of Health.
- Dave, S., Nazareth, I., Sherr, L., & Senior, R. (2005). The association of paternal mood and infant temperament: A pilot study. *British Journal of Developmental Psychology*, 23(4), 609-621.
- Davey, S.J., Dziurawiec, S., & O'Brien-Malone, A. (2006). Men's voices: postnatal depression from the perspective of male partners. *Qualitative Health Research*. 16(2), 206-220.
- Dex, S. & Joshi, H. (2005). *Children of the 21st Century: from birth to 9 months*. London: Policy Press.
- Diemer, G. (1997). Expectant fathers: influence of perinatal education on coping, stress, and spousal relations. *Research in Nursing and Health*, 20, 281-293.
- Donate-Bartfield, D., & Passman, R.H. (1985). Attentiveness of mothers and fathers to their babies' cries. *Infant Behaviour and Development*, 8, 385-393.
- Dudley, M., Roy, K., Kelk, N., & Bernard, D. (2001). Psychological correlates of depression in fathers and mothers in the first postnatal year. *Journal of Reproductive and Infant Psychology*, 19(3), 187-202.
- Dunn, J., Davies, L., O'Connor, T., & Sturgess, W. (2000). Parents' and partners' life course and family experiences: links with parent-child relationships in different family settings. *Journal of Child Psychology and Psychiatric and Allied Disciplines*, 41(8), 955-968.

- Dunn, J., & Kendrick, C. (1982). *Siblings: Love, Envy, and Understanding*. Cambridge, Mass: Harvard University Press.
- Easterbrooks, M.A., & Goldberg, W.A. (1984). Toddler development in the family: impact of father involvement and parenting characteristics. *Child Development*, 53, 740-752.
- Edhborg, M., Lundh, W., Seimyr, L., & Widstrom, A. M. (2003). The parent-child relationship in the context of maternal depressive mood. *Archives of Women's Mental Health*, 6(3), 211-216.
- Eiden, R.D., Edwards, E.P., & Leonard, K.E. (2002). Mother-infant and father-infant attachment among families with alcoholic fathers. *Development and Psychopathology*, 14(2), 253-278.
- Eiden, R.D., & Leonard, K.E. (2000). Paternal alcoholism, parental psychopathology and aggravation with infants. *Journal of Substance Abuse*, 11(1), 17-29.
- Eiden, R.D., & Leonard, K.E. (1996). Paternal alcohol use and the mother-infant relationship. *Development and Psychopathology*, 8, 307-323.
- Ekalin, M., Crang-Svalenius, E., Dykes, A.K. (2004). A qualitative study of mothers' and fathers' experiences of routine ultrasound examination in Sweden. *Midwifery*, 20(4), 335-344.
- Enkin, M.W., Kierse, M.J.N.C., Neilson, J., Crowther, C., Duley, L., Hodnett, E. et al (2000). *A Guide to Effective Care In Pregnancy and Childbirth*, (3rd ed.). Oxford: Oxford University Press.
- Enkin, M.W., Kierse, M.J.N.C., Renfrew, M., & Neilson, J., with the editorial assistance of Enkin, E. (1995). *A Guide to Effective Care In Pregnancy and Childbirth*, (2nd ed.). Oxford: Oxford University Press.
- EOC (2003). *Time Use and Childcare*. Briefing paper based on analysis of the UK Time Use Survey (ONS, 2000/1). Briefing paper available at http://www.eoc.org.uk/PDF/time_use_and_childcare.pdf (last accessed 2 September 2006)
- Everett, K.D., Bullock, L., Gage, J.D., Longo, D.R., Geden, E. & Madsen, R. (2006). Health risk behavior of low-income expectant fathers. *Public Health Nursing*, 23(4), 297-306.
- Fagot, B.L., & Kavenagh, K. (1993). Parenting during the second year: effects of children's age, sex and attachment classification. *Child Development*, 64, 258-271.
- Falceto, O.G., Giugliani, E.R. J., & Fernandes, C.L.C. (2004). Couples' relationships and breastfeeding: is there an association? *Journal of Human Lactation*, 20(1), 46-55.
- Fathers Direct (2006b). Trainer reports of information given by participants in Father's Direct training sessions. Unpublished reports.
- Fathers Direct (2002-2006). FatherWork Magazine. Various case studies of fatherhood programmes based in the UK, many now available at: www.fatherhoodinstitute.org. London: Fathers Direct.
- Fathers Direct (2000). What Good are Dads? FatherFact Briefing Paper 1. Available to download from: <http://www.fathersdirect.com/index.php?id=3&clD=111> (last accessed 22 November, 2006).
- Feiring, C. (1976). The preliminary development of a social systems model of early infant-mother attachment. Paper presented at the meeting of the Eastern Psychological Association, New York.
- Field, T. (1998). Maternal depression effects on infants, and early interventions. *Preventive Medicine*, 27(2), 200-203.
- Field, T., Hossain, Z., & Malphurs, J. (1999). Depressed fathers' interactions with their infants. *Infant Mental Health Journal*, 20, 322-332.
- Fisher, J.R.W., Cabral de Mello, M., Patel, V., & Rahman, A. (2006). Maternal depression and newborn health. *Newsletter for the Partnership of Maternal, Newborn & Child Health*, 2. Geneva. Document available at <http://www.pmnch.org> (last accessed 23 April 2007).
- Fisher, K., McCulloch, A. & Gershuny, J. (1999). *British fathers and children*. Working Paper. University of Essex: Institute for Social and Economic Research.
- Flouri, E. (2005). *Fathering & Child Outcomes*. Chichester, West Sussex: John Wiley & Sons.
- Flouri, E. & Buchanan, A. (2003). What predicts fathers' involvement with their children? a prospective study of intact families. *British Journal of Developmental Psychology* 21, 81-97.
- Fortin, J., Ritchie, C., & Buchanan, A. (2006). Young adults' perceptions of court-ordered contact. *Child and Family Law Quarterly*, 18(2), 211-229.
- Fragile Families. (2005). *In-Hospital Paternity Establishment and Father Involvement in Fragile Families* Research Brief Number 30. Available at: <http://www.fragilefamilies.princeton.edu/briefs/ResearchBrief30.pdf> (last accessed 26 July, 2006).
- Frank, D.A., Brown, J., Johnson, S., & Cabral, H. (2002). Forgotten fathers: An exploratory study of mothers' report of drug and alcohol problems among fathers of urban newborns. *Neurotoxicology & Teratology*, 24(3), 339-347.
- Frascarolo, F. (2004). Paternal involvement in child caregiving and infant sociability. *Infant Mental Health Journal*, 25(6), 509-521.
- Freed, G.L., Fraley, J.K., & Schanler, R.J. (1993). Accuracy of expectant mothers' predictions of fathers' attitudes regarding breast-feeding. *Journal of Family Practice*, 37(2), 148-152.
- Gearing, R.E., McNeill, T., & Lozier, F.A. (2005). Father involvement and fetal alcohol spectrum disorder: developing best practices. Hospital for Sick Children, Department of Social Work, Toronto, Ontario. Paper available at: http://www.fira.ca/cms/documents/16/Father_Involvement_and_FASD.pdf

- Ghate, D., Shaw, C., & Hazel, N. (2000). *Engaging fathers in preventive services: fathers and family centres*. York: Joseph Rowntree Foundation and York YPS. (A copy of the Findings 'How family centres are working with fathers' is available on the web at: <http://www.jrf.org.uk/knowledge/findings/socialpolicy/330.asp>).
- Gibbins, J., & Thomson, A. M. (2001). Women's expectations and experiences of childbirth. *Midwifery*, 17(4), 302-313.
- Glade, A.C., Bean, R.A., & Vira, R. (2005). A prime time for marital/relational interventions: a review of the transition to parenthood literature with treatment recommendations. *The American Journal of Family Therapy*, 33, 319-336.
- Goodman, J.H. (2004). Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. *Journal of Advanced Nursing*, 45(1), 26-35.
- Gorrell Barnes, G., Thompson, P., Daniel, G., & Burchardt, N. (1998). *Growing up in Stepfamilies*. Oxford: Clarendon Press.
- Greenhalgh, R., Slade, P., & Spiby, H. (2000). Fathers' coping style, antenatal preparation, and experiences of labour and postpartum. *Birth-Issues In Perinatal Care*, 27(3), 177-184.
- Grossman, K., Grossman, K.E., Fremmer-Bombik, E., Kindler, H., Scheurer-English, H., & Zimmermann, P. (2002). The uniqueness of the child-father attachment relationship: fathers' sensitive and challenging play as a pivotal variable in a 16-year long study. *Social Development*, 11, 307-331.
- Grossman, K., Fremmer-Bombik, E., Rudolph, J., & Grossman, K. (1988). Maternal attachment representations as related to patterns of infant-mother-attachment and maternal care during the first year. In R. A. Hinde & J. Stevenson-Hinde (eds.), *Relationships within families: mutual influences*. Oxford: Clarendon Press
- Grube, M. (2004). Pre- and postpartal psychiatric disorders and support from male partners. A first qualitative approximation. *Nervenarzt*, 75(5), 483-488.
- Guterman, N.B., & Lee, Y. (2005). The role of fathers in risk for physical child abuse and neglect: possible pathways and unanswered questions. *Child Maltreatment*, 10(2), 136-149.
- Habib, C., & Lancaster, S.J. (2005). The transition to fatherhood: the level of first-time fathers' involvement and strength of bonding with their infants. *Journal of Family Studies*, 11(2), 249-266.
- Hayward, J., & Chalmers, B. (1990). Obstetricians' and mothers' perceptions of obstetric events. *Journal of Psychosomatic Obstetrics and Gynaecology*, 11(1).
- Health Education Authority (1999). Smoking and pregnancy: A survey of knowledge, attitudes and behaviour, 1992-1999. London: Health Education Agency. Available at <http://www.publichealth.nice.org.uk/page.aspx?o=502015> (last accessed 15 November 2006).
- Henneborn, W.J., & Cogan, R. (1975). The effect of husband participation in reported pain and the probability of medication during labor and birth. *Journal of Psychosomatic Research*, 19, 215-222.
- Henshaw, D. (2006). Sir David Henshaw's report to the Secretary of State for Work and Pensions. *Recovering child support: routes to responsibility*. London: Department for Work and Pensions. Available at http://dwp.gov.uk/childsupport/pdfs/Henshaw_complete22_7.pdf (Last accessed 6 December 2006).
- Holopainen, D. (2002). The experience of seeking help for postnatal depression. *Australian Journal of Advanced Nursing*, 19(3), 39-44.
- Hossain, Z., Field, T., Gonzalez, J., Malphurs, J., Del Valle, C., & Pickens, J. (1994). Infants of 'depressed' mothers interact better with their nondepressed fathers. *Infant Mental Health Journal*, 15(4), 348-357.
- Hourani, L., & Hilton, S. (2000). Occupational and environmental exposure correlates of adverse live-birth outcomes among 1032 US Navy women. *Journal of Occupational and Environmental Medicine*, 42(12), 1156-1165.
- Huang, C.C., & Warner, L.A. (2005). Relationship characteristics & depression among fathers with newborns. *Social Service Review*, 79, 95-118.
- Hwang, C.P., & Lamb, M.E. (1997). Father-involvement in Sweden: a longitudinal study of its stability and correlates. *International Journal of Behavioral Development*, 21, 417-430.
- Ip, W.Y. (2000). Relationship between partner's support during labour and maternal outcomes. *Journal of Clinical Nursing*, 9, 265-272.
- Isley, S., O'Neil, R., Clatfelter, D., & Parke, R.D. (1999). Parent and child expressed affect and children's social competence: modeling direct and indirect pathways. *Developmental Psychology*, 35, 547-560.
- Isley, S., O'Neil, R., & Parke, R.D. (1996). The relation of parental affect and control behaviours to children's classroom acceptance: a concurrent and predictive analysis. *Early Education and Development*, 7, 7-23.
- Jackson, A.P. (1999). The effects of nonresident father involvement on single black mothers and their young children. *Social Work*, 44(2), 157-166.
- Jaffee, S. R., Moffitt, T. E., Caspi, A., & Taylor, A. (2003). Life with (or without) father: the benefits of living with two biological parents depend on the father's antisocial behaviour. *Child Development*, 74, 109-126.
- Jaffee, S.R., Wolfe, D. & Wilson, S. (1990). *Children of Battered Women*. London: Sage Publications.
- Janssen, P.A., Holt, V.L., Sugg, N.K., Emanuel, I., Critchlow, C., & Henderson, A. (2003). Intimate partner violence and adverse pregnancy outcomes: a population-based study. *American Journal of Obstetrics and Gynecology*, 188(5), 1341-1347.
- Johnson, M. P. (2002). The implications of unfulfilled expectations and perceived pressure to attend the birth on men's stress levels following birth attendance: a longitudinal study. *Journal of Psychosomatic Obstetrics and Gynaecology*, 23(3), 173-182.

- Jones, L.C. (1988). Support systems. In F.H. Nichols & S.S. Humenick (eds.), *Childbirth Education: Practice, Research and Theory*. Philadelphia: Saunders.
- Jordan, L.C., & Lewis, M.L. (2005). Paternal relationship quality as a protective factor: preventing alcohol use among African American adolescents. *Journal of Black Psychology*, 31(2), 152-171.
- Jordan, P. L., & Wall, R. (1993). Supporting the father when an infant is breastfed. *Journal of Human Lactation*, 9(1), 31-4. & 9(4), 221.
- Jorm, A.F., Dear, K.B.G., Rodgers, B., & Christensen, H. (2003). Interaction between mother's and father's affection as a risk factor for anxiety and depression symptoms: evidence for increased risk in adults who rate their father as having been more affectionate than their mother. *Social Psychiatry and Psychiatric Epidemiology*, 38,173-179.
- Kaarensen, P. I., Ronning, J. A., Ulvund, S. E., & Dahl, L. B. (2006). A randomized, controlled trial of the effectiveness of an early-intervention program in reducing parenting stress after preterm birth. *Pediatrics*, 118(1), 366-367.
- Kalil, A., Ziol-Guest, K.M., & Coley, R.L. (2005). Perception of father involvement patterns in teenage mother families: predictors and links to mothers' psychological adjustment. *Family Relations*, 54, 197-211.
- Kane, P., & Garber, J. (2004). The relations among depression in fathers, children's psychopathology and father-child conflict: a meta-analysis. *Clinical Psychology Review*, 24(3), 339-60.
- Kaplan, P.S., Dungan, J.K., & Zinser, M.C. (2004). Infants of chronically depressed mothers learn in response to male, but not female, infant-directed speech. *Developmental Psychology*, 40, 140-148.
- Kearney, M.H., Munro, B.H., Kelly, U., & Hawkins, J.W. (2004). Health behaviors as mediators for the effect of partner abuse on infant birth weight. *Nursing Research*, 53(1), 36-45.
- Keller, W. D., Hildebrandt, K. A., & Richards, M. E. (1985). Effects of extended father-infant contact during the neonatal period. *Infant Behavior and Development*, 8, 337-350.
- Keogh, E., Hughes, S., Ellery, D., Daniel, C.D., & Holdcroft, A. (2006). Psychosocial influences on women's experience of planned elective cesarean section. *Psychosomatic Medicine*, 68,167-174.
- Kiernan, K. (2006). Non-residential fatherhood and child involvement: evidence from the Millenium Cohort Study. *Journal of Social Policy*, 35(4), 1-19.
- Kiernan, K., & Smith, K. (2003). Unmarried parenthood: new insights from the Millennium Cohort Study. *Population Trends*, 114, 26-33. London: Office of Population, Censuses and Surveys.
- Klein, R.P., Gist, N.E., Nicholson, J., & Standley, K. (1981). A study of father and nurse support during labour. *Birth and the Family Journal*, 8, 161-164.
- Knopik, V.S., Sparrow, E.P., Madden, P.A., Bucholz, K.K., Hudziak, J.J., Reich, W., et al (2005). Contributions of parental alcoholism, prenatal substance exposure, and genetic transmission to child ADHD risk: a female twin study. *Psychological Medicine*, 35(5), 625-635.
- Kojima, Y., Irisawa, M., & Wakita, M. (2005). The impact of a second infant on interactions of mothers and firstborn children. *Journal of Reproductive and Infant Psychology*, 23(1), 103-114.
- Kraemer, S. (2005): Narratives of fathers and sons: there is no such thing as a father. In A. Vetere & E. Dowling (eds.), *Narrative Therapies with Children and their Families: A Practitioners Guide to Concepts and Approaches*. London: Brunner/Routledge.
- Kurstjens, S., & Wolke, D. (2001). Effects of maternal depression on cognitive development of children over the first 7 years of life. *Journal of Child Psychology and Psychiatry*, 42(5), 623-636.
- Lamb, M.E. (ed.) (2004). *The Role of the Father in Child Development* (4th ed.). Hoboken NJ: John Wiley & Sons.
- Lamb, M.E., & Lewis, C. (2004). The development and significance of father-child relationships in two-parent families. In M.E. Lamb (ed.), *The Role of the Father in Child Development* (4th ed.). Hoboken NJ: John Wiley & Sons.
- Lane, A.R., Wilcoxon, S.A., & Cecil, J.H. (1988). Family-of-origin experiences and the transition to parenthood: considerations for marital and family therapists. *Family Therapy*, 15(1), 23-29.
- Laumann-Billings, L.L., & Emery, R.E. (1998). *Young adults' painful feelings about parental divorce*. Unpublished paper, University of Virginia.
- Leinonen, J.A., Solantaus, T.S., & Punamaki, R.-L. (2003). Parental mental health and children's mental health adjustment: the quality of marital interaction and parenting as mediating factors. *Journal of Child Psychology and Psychiatry*, 44, 227-241.
- Leonard, K.E., Eiden, R.D., Wong, M.M., Zucker, R.A., Puttler, L.L., Fitzgerald, H.E. et al. (2002). Developmental perspectives on risk and vulnerability in alcoholic families. *Alcoholism: Clinical & Experimental Research*, 24(2), 238-240.
- Leonardson, G.R., & Loudenburg, R. (2003). Risk factors for alcohol use during pregnancy in a multistate area. *Neurotoxicology & Teratology*, 25(6), 651-8; Logan, T.K., Walker, R., Nagle, L., Lewis, J., & Wiesenhahn, D. (2003). Rural and small-town attitudes about alcohol use during pregnancy: a community and provider sample. *Journal of Rural Health* 19(4), 497-505.
- Levine, J.A., & Pitt, E.W. (1995). *New Expectations: Community Strategies for Responsible Fatherhood*. New York: Families and Work Institute.
- Lewinsohn, P.M., Olino, T.M., & Klein, D.N. (2005). Psychosocial impairment in offspring of depressed parents. *Psychological Medicine*, 35(10), 1493-1503.
- Lewis, C. (1986). *Becoming a Father*. Milton Keynes: Open University Press.
- Llewellyn-Smith, J. (2006). *Hard Labour. First Person*. July. London: The Observer Newspaper.

- Lu, Y., Tong, S., & Oldenburg, B. (2001). Determinants of smoking and cessation during and after pregnancy. *Health Promotion International*, 16(4), 355-365.
- Lupton, D., & Barclay, L. (1997). *Constructing Fatherhood: discourses and experiences*. London: Sage Publications.
- Macfarlane, A., Stafford, M., & Moser, K. (2004). *Social Inequalities*. London: Office of National Statistics. Document available at <http://www.statistics.gov.uk/Children/downloads/inequalities.pdf> (Last accessed 16 September 2006).
- Maclean, M., & Eekelaar, J. (1997). *The parental obligation: A study of parenthood across households*. Oxford: Hart Publishing.
- Madsen, S.A. (2006). Fathers and postnatal depression: research results from the Project: *Men's Psychological Transition to Fatherhood – Mood Disorders in Men Becoming Fathers*. Copenhagen: Rigshospitalet. Obtain from: svaam@rh.dk.
- Magill-Evans, J., & Harrison, M.J. (1999). Parent-child interactions and development of toddlers born preterm. *Western Journal of Nursing Research*, 21, 292-307.
- Martin, S.L., Harris-Britt, A., Li, Y., Moracco, K.E., Kupper, L.L., & Campbell, J.C. (2004). Changes in intimate partner violence during pregnancy. *Journal of Family Violence*, 19(4), 201-210.
- Matthey, S., Kavanagh, D. J., Howie, P., Barnett, B., & Charles, M. (2004). Prevention of postnatal distress or depression: an evaluation of an intervention at preparation for parenthood classes. *Journal of Affective Disorders*, 79(1-3), 113-26.
- Matthey, S., & Barnett, B. (1999). Parent infant classes in the early postpartum period: need and participation by fathers and mothers. *Infant Mental Health Journal*, 20, 278-290.
- McBride, C.M., Baucom, D.H., Peterson, B.L., Pollack, K.I., Palmer, C., Westman, E. et al (2004). Prenatal and postpartum smoking abstinence: a partner-assisted approach. *American Journal of Preventive Medicine*, 27(3), 232-238.
- McElligott, M. (2001). Antenatal information wanted by first-time fathers. *British Journal of Midwifery*, 9(9).
- McElwain, N.L., & Volling B.L. (1999). Depressed mood and marital conflict: relations to maternal and paternal intrusiveness with one-year-old infants. *Journal of Applied Developmental Psychology*, 20(1), 63-83.
- McHale, S.M., & Huston, T.I. (1984). Men and women as parents: sex role orientations, employment, and parental roles with infants. *Child Development*, 55, 1349-1361.
- McLanahan, S.S. (1997). Paternal absence or poverty: which matters more? In G. Duncan & J. Brooks-Gunn (eds.), *Consequences of Growing Up Poor*. New York: Russell Sage Foundation.
- McLanahan, S., & Teitler, J. (1999). The consequences of father absence. In M.E. Lamb (ed.), *Parenting and Child Development in 'Nontraditional Families'*. Mahwah, NJ: Erlbaum.
- McLeod, D., Pullon, S., & Cookson, T. (2002). Factors influencing continuation of breastfeeding in a cohort of women. In: *Midwives and women working together for the family of the world: ICM proceedings*. The Hague: International Confederation of Midwives.
- Mercer, R.T., Hackley, K., & Bostrom, A. (1984). Relationship of the birth experience to later mothering behaviors. *Journal of Nurse-Midwifery*, 30, 204-11.
- Mezulis, A.H., Hyde, J.S., & Clark, R. (2004). Father involvement moderates the effect of maternal depression during a child's infancy on child behaviour problems in kindergarten. *Journal of Family Psychology*, 18(4), 575-588.
- Minnesota Fathers and Families Network (2007). *Do we Count Fathers in Minnesota?: searching for key indicators of the well-being of fathers and families*. St Cloud: Child and Family Studies Department.
- Misri, S., Kostaras, X., Fox, D., & Kostaras, D. (2000). The impact of partner support in the treatment of postpartum depression. *Canadian Journal of Psychiatry*, 45(6), 554-8.
- Mize, J., & Pettit, G. (1997). Mothers' social coaching, mother-child relationship style and children's peer competence: is the medium the message? *Child Development*, 68, 312-332.
- Moffatt, J., & Stanton, W.R., (2005). Smoking and parenting among males in low socio-economic occupations. *International Journal of Health Promotion & Education*, 43(3), 81-86.
- Monden, C.W.S., van Lenthe, F., De Graaf, N.D., & Kraaykamp, G. (2003). Partner's and own education: does who you live with matter for self-assessed health, smoking and excessive alcohol consumption? *Social Science & Medicine*, 57, 1901-1912.
- Moore, T., & Kotelchuck, M. (2004). Predictors of urban fathers' involvement in their child's health care. *Pediatrics*, 113(3), 574-580.
- Munk-Olsen, T., Laursen, T.M., Pedersen, C.B., Mors, O., & Mortensen, P.B. (2006). New parents and mental disorders: a population-based register study. *Journal of the American Medical Association*, 296(21), 2582-2589.
- Murray, L., Cooper, P.J., Wilson, A., & Romaniuk, H. (2003). Controlled trial of the short- and long-term effect of psychological treatment of post-partum depression: impact on the mother-child relationship and child outcomes. *The British Journal of Psychiatry*, 182, 420-427.
- Myers, B.J. (1982). Early intervention using Brazelton training with middle-class mothers and fathers of newborns. *Child Development*, 53, 462-471.
- National Health Service (2005). *NHS Maternity Services Quantitative Research* (October), Prepared by TNS System Three for Kate Hawkins, Department of Health, London.
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). (1987). *Sixth special report to the U.S. Congress on alcohol and health*. Washington, DC: U.S. Department of Health and Human Services.

- Nickel, H., & Kocher, N. (1987). West Germany and the German speaking countries. In M.E.Lamb (ed.), *The Father's Role: Cross-Cultural Comparisons*. Hillsdale, NJ: Lawrence Erlbaum.
- Ninio, A., & Rinott, N. (1988). Fathers' involvement in the care of their infants and their attributions of cognitive competence to infants. *Child Development*, 59, 652-663.
- Nugent, J.K. (1991). Cultural and psychological influences on the father's role in infant development. *Journal of Marriage and the Family*, 53, 2, 475-485.
- O'Brien, M. (2004a). Shared Caring: bringing fathers into the frame. Working Paper Series No 18. London: Equal Opportunities Commission. Working paper available at http://www.eoc.org.uk/PDF/shared_caring_wp18.pdf (last accessed 2 September 2006).
- O'Brien, M. (2004b). *Fathers and Family Support: promoting involvement and evaluating impact*. London: National Family and Parenting Institute.
- O'Brien, M., & Shemilt, I. (2003). Working Fathers: earning and caring. London: Equal Opportunities Commission. Available at: <http://www.eoc.org.uk/PDF/ueareport.pdf> (Last accessed 17 October 2006).
- O'Connor, T.G., Ben-Shlomo, Y., Heron, J., Golding, J., Adams, D., & Glover, V. (2005). Prenatal Anxiety Predicts Individual Differences in Cortisol in Pre-Adolescent Children. *Biological Psychiatry*, 58(2), 11-217
- Odent, M. (1999). Is the father's participation at birth dangerous? *Midwifery Today*, 51.
- O'Keane, V., & Scott, J. (2005). From 'obstetric complications' to a maternal-foetal origin hypothesis of mood disorder. *British Journal of Psychiatry*, 186, 367-368.
- Palkovitz, R. (1985). Fathers' birth attendance, early contact and extended contact with their newborns: a critical review. *Child Development*, 56, 392-406.
- Parke, R.D. (1996). *Fatherhood*. Cambridge, Mass.: Harvard University Press.
- Parke, R.D., Dennis, J., Flyr, J.L., Morris, K.L., Killian, C., McDowell, D.J., et al (2004). Fathering and children's peer relationships. In M.E. Lamb (ed.), *The Role of the Father in Child Development* (4th ed.). Hoboken NJ: John Wiley & Sons.
- Pederson, F., Zazlow, M.T., Cain, R.L. & Anderson, B.J. (1980). *Caesarian birth: the importance of a family perspective*. Paper presented at the International Conference on Infant Studies (April).
- Penn, G., & Owen, L. (2002). Factors associated with continued smoking during pregnancy: analysis of socio-demographic, pregnancy and smoking-related factors. *Drug and Alcohol Review*, 21(1), 17-25.
- Pfannenstiel, A.E., & Honig, A.S. (1995). Effects of a prenatal 'Information and insights about infants' program on the knowledge base of first-time low-education fathers one month postnatally. *Early Child Development and Care*, 111, 87-105.
- Phares, V. (1999). *"Poppa" Psychology: the role of fathers in children's mental well-being*. Westport, Connecticut: Praeger.
- Phares, V. (1997). Psychological adjustment, maladjustment and father-child relationships. In M.E. Lamb *The Role of the Father in Child Development* (3rd ed.) Hoboken, NJ: John Wiley & Sons.
- Piscane, A., Continisio, G. I., Aldinucci, M., D'Amora, S., & Continisio, P. (2005). A controlled trial of the father's role in breastfeeding promotion. *Pediatrics*, 116(4), 494-498.
- Pleck, J.H., & Masciadrelli, B.P. (2004). Paternal Involvement by U.S. residential fathers: levels, sources and consequences. In M.E. Lamb (ed.), *The Role of the Father in Child Development* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Pollock, C.A., Bustamante-Forest, R., & Giarratano, G. (2002). Men of diverse cultures: knowledge and attitudes about breastfeeding. *Journal of Obstetric, Gynaecologic and Neonatal Nursing*, 31(6), 673-679.
- Prochaska, J. O., & Goldstein, M.G. (1991). Process of smoking cessation: Implications for clinicians. *Clinical Chest Medicine* 12, 727-735.
- Pruett, K.D. (2000). *Fatherneed: Why Father Care is as Essential as Mother Care for Your Child*. New York: Free Press.
- Pryor, J., & Rodgers, B. (2001). *Children in Changing Families: life after parental separation*. Oxford: Blackwell Publishers.
- Ramchandani, P., Stein, A., Evans, J., O'Connor, T. and the ALSPAC study team (2005). Paternal depression in the postnatal period and child development: a prospective population study. *Lancet*, 365 (9478), 2201-5.
- Ratner, P.A., Johnson, J.L., & Bottorff, J.L. (2001). Mothers' efforts to protect their infants from environmental tobacco smoke. *Canadian Public Health Journal*, 20(92), 46-47.
- Reichman, N., & Teitler, J. (2006). Paternal age as a risk factor for low birth weight. *American Journal of Public Health*, 96(5), 862-866.
- Reijneveld, S.A., Lanting, C.I., Crone, M.R., & Wouwe, J.P. (2005). Exposure to tobacco smoke and infant crying. *Acta Paediatrica*, 94(2), 217-224.
- Rimmerman, A., & Sheran, H. (2001). The transition of Israeli men to fatherhood: a comparison between new fathers of pre-term/full-term infants. *Child & Family Social Work*, 6(3), 261-267.
- Roberts, S. L., Bushnell, J.A., Collings, S.C., & Purdie, G.L. (2006). Psychological health of men with partners who have post-partum depression. *Australian and New Zealand Journal of Psychiatry*, 40(8), 704-711,
- Roggman, L.A., Boyce, L.K., Cook, G.A., & Cook, J. (2002). Getting dads involved: predictors of father involvement in early head start and with their children. *Infant Mental Health Journal*, 23(1-2), 62-78.

- Roopnarine, J.L., Krishnakumar, A., Metindogan, A., Evans, M. (2006). Links between parenting styles, parent-child academic interaction, parent-school interaction, and early academic skills and social behaviors in young children of English-speaking Caribbean immigrants. *Early Childhood Research Quarterly*, 21(2), 238-252.
- Russell, G., Barclay, L., Edgecombe, G., Donovan, J., Habib, G., Callaghan, H., & Pawson, Q. (1999). *Fitting Fathers into Families*. Canberra: Australian Federal Department of Family & Community Services.
- Saisto, T., Salmela-Aro, K., Nurmi, J.E., & Halmesmaki, E. (2001). Psychosocial characteristics of women and their partners fearing vaginal childbirth. *British Journal of Obstetrics and Gynaecology*, 108(5), 492-498.
- Schmidt, M. M., & Sigman-Grant, M. (2000). Perspectives of low-income fathers' support of breastfeeding: an exploratory study. *Journal of Nutrition Education*, 32(1), 31-37.
- Schmied, V., Myers, K., & Wills, J. (1999). *Visions' of Parenthood: innovation in the presentation of childbirth and parenting education*. St. George's Hospital, Sydney: Family Health Research Unit.
- Scholz, K., & Samuels, A. (1992). Neonatal bathing and massage intervention with fathers, behavioural effects 12 weeks after birth of the first baby: the Sunraysia Australia Intervention Project. *International Journal of Behavioral Development*, 5(1), 67-81.
- Scott, J.A., Landers, J., Hughes, R., & Binns, C.W. (2001). Factors associated with the initiation and duration of breastfeeding amongst two populations of Australian women. *Journal of Paediatrics & Child Health*, 37, 254-261.
- Scott, J.A., Binns, C.W., & Aroni, R.A. (1997). The influence of reported parental attitudes on the decision to breastfeed. *Journal of Paediatric Child Health*, 33(4), 214-219.
- Scott, J. A., Shaker. I., & Reid, M. (2004). Parental attitudes toward breastfeeding: their association with feeding outcome at hospital discharge. *Birth*, 31(2), 125-31.
- Shaker, I., Scott, J.A., & Reid, M. (2004). Infant feeding attitudes of expectant parents: breastfeeding and formula feeding. *Journal of advanced Nursing*, 45(3), 260-268.
- Sherr, I., Davé, S., Lucas, P., Senior, R., & Nazareth, I. (2006) A feasibility study on recruiting fathers of young children to examine the impact of paternal depression on child development. *Child Psychiatry and Human Development*, 36, 3.
- Shepherd, C.K., Power, K.G., & Carter, H. (2000). Examining the correspondence of breast-feeding couples' infant feeding attitudes. *Journal of Advanced Nursing*, 31(3), 651-660.
- Silverman, J.G., Decker, M.R., Reed, E., & Raj, A. (2006). Intimate partner violence victimization prior to and during pregnancy among women residing in 26 U.S. states: Associations with maternal and neonatal health. *American Journal of Obstetrics & Gynecology*, 195(1), 140-148.
- Sinal, S.H., Petree, A.R., Herman-Giddens, M., Rogers, M.K., Enand, C., & DuRant, R.H. (2000). Is race or ethnicity a predictive factor in shaken baby syndrome? *Child Abuse & Neglect*, 25(9), 1241-1246.
- Singh, D., & Newburn, M. (2000). *Becoming a father: Men's access to information and support about pregnancy, birth and life with a new baby*. London: National Childbirth Trust & Fathers Direct.
- Smeaton, D., & Marsh, A. (2006). *Maternity and Paternity Rights and Benefits: Survey of Parents 2005*. Employment Relations Research Series No. 50. Department of Trade and Industry.
- Soliday, E., McCluskey, Fawcett, K., & O'Brien, M. (1999). Postpartum affect and depressive symptoms in mothers and fathers. *American Journal of Orthopsychiatry*, 69(1), 30-38.
- Spiby, H., Henderson, B., Slade, P., Escott, D., & Fraser, R.B. (1999). Strategies for coping with labour: does antenatal education translate into practice? *Journal of Advanced Nursing*, 29(2), 388.
- Stanton, W.R., Lowe, J.B., Moffatt, J.J., & Del Marr, C. (2004). Randomized control trial of a smoking cessation intervention directed at men whose partners are pregnant. *Preventive Medicine*, 38, 6-9.
- Steele, H., Steele, M., & Fonagy, P. (1996). Associations among attachments classifications of mothers, fathers and infants. *Child Development*, 67, 514-555.
- Sternberg, P. & Hubley, J. (2004). Evaluating men's involvement as a strategy in sexual and reproductive health promotion. *Health Promotion International* 19(3), 389-396.
- Sullivan, J.R. (1999). Development of father-infant attachment in fathers of preterm infants. *Neonatal Network*, 18(7), 33-39.
- Sullivan, M.L., Leathers, S.L., & Kelly, M.A. (2004). Family characteristics associated with duration of breastfeeding during early infancy among primiparas. *Journal of Human Lactation*, 20(2), 196-205.
- Susin, L.R., Guigliani, E.R, Kummer, S.C., Maciel, M., Simon, C., & daSilveira, L.C. (1999). Does parental breastfeeding knowledge increase breastfeeding rates? *Birth*, 26(3), 149-56.
- Swanson, V., & Power, K.G. (2005). Initiation and continuation of breastfeeding: theory of planned behaviour. *Journal of Advanced Nursing*, 50(3), 272-282.
- Tamis-LeMonda, C.S., Shannon, J.D., Cabrera, N.J., & Lamb, M.E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: contributions to language and cognitive development. *Child Development*, 75(6), 1806-1820.
- Tarkka, M.J., Paunonen, M., & Laippala, P. (2000). Importance of the midwife in the first-time mother's experience of childbirth. *Scandinavian Journal of Caring Science*, 14, 184-190.
- Teitler, J.O. (2001) Father involvement, child health and maternal health behavior. *Children and Youth Services Review*, 23(4/5), 403-425.
- Tuten, M., Jones, H.E., Tran, G., & Svikis, D. (2004). Partner violence impacts the psychosocial and psychiatric status of pregnant drug dependent women. *Addictive Behaviours*, 29(5), 1029-1034.

- Unger, D.G., & Wandersman, L.P. (1988). The relation of family and partner support to the adjustment of adolescent mothers. *Child Development*, 59(4), 1056-1060.
- Van den Bergh, B.R., Mulder, E.J., Mennes, M., & Glover, V. (2005). Antenatal maternal anxiety and stress and the neurobehavioural development of the fetus and child: links and possible mechanisms. A review. *Neuroscience and Biobehavioural Reviews*, 29(2), 237-58.
- Velleman, R. (2004). Alcohol and drug problems in parents: an overview of the impact on children and implications for practice. In M. Gopfert, J. Webster & M.V. Seeman (eds.), *Parental Psychiatric Disorder: distressed parents and their families* (2nd ed.). Cambridge: Cambridge University Press.
- Venners, S.A., Wang, X., Chen, C., Wang, L., Chen, D., Guang, W., et al (2004). Paternal smoking and pregnancy loss: a prospective study using a biomarker of pregnancy. *American Journal of Epidemiology*, 159(10), 993-1001.
- Versheuren, K., & Marcoen, A. (1999). Representation of self and socioemotional competence in kindergartners: differential and combined effects of attachment to mother and to fathers. *Child Development*, 70, 183-201.
- Wachs, T., Uzgiris, I., & Hunt, J. (1971). Cognitive development of infants of different age levels and from different environmental backgrounds. *Merrill-Palmer Quarterly*, 17, 283-317.
- Wakefield, M., Reid, Y., Roberts, L., Mullins, R., & Gillies, P. (1998). Smoking and smoking cessation among men whose partners are pregnant: a qualitative study. *Social Science and Medicine*, 47, 657-664.
- Westmaas, J., Ferrence, R., & Wild, C. (2002). Effects of gender in social control of smoking. *Health Psychology*, 21, 368-376.
- Wolfberg, A.J., Michels, K.B., Shields, W., O'Campo, P., Bronner, Y., & Bienstock, J. (2004). Dads as breastfeeding advocates: results from a randomized controlled trial of an educational intervention. *American journal of Obstetrics and Gynaecology*, 191(3), 708-712.
- Yarrow, L.J., MacTurk, R.H., Vietze, P.M., McCarthy, M.E., Klein, R.P., & McQuiston, S. (1984). Developmental course of parental stimulation and its relationship to mastery motivation during infancy. *Developmental Psychology*, 20, 492-503.
- Yogman, M.W., Kindlon, D., & Earls, F. (1995). Father-involvement and cognitive-behavioural outcomes of preterm infants. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 58-66.
- Zelazo, P.R., Kotelchuck, M., Barber, L., & David, J. (1977, March). Fathers as men: an experimental facilitation of attachment behaviours. Paper presented at the meeting of the Society for Research in Child Development, New Orleans.
- Zelenko, M.A., Huffman, L., Lock, J., Kennedy, Q., & Steiner, H. (2001). Poor adolescent expectant mothers: can we assess their potential for child abuse? *Journal of Adolescent Health*, 29(4), 271-279.

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- collates and publishes international research on fathers, fatherhood and different approaches to engaging with fathers
- helps shape national and local policies to ensure a father-inclusive approach to family policy
- injects research evidence on fathers and fatherhood into national debates about parenting and parental roles
- lobbies for changes in law, policy and practice to dismantle barriers to fathers' care of infants and children
- is the UK's leading provider of training, consultancy and publications on father-inclusive practice, for public and third sector agencies and employers

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