

Fathers' roles in perinatal mental health: causes, interactions and effects

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This article looks at antenatal and postnatal mental health, addressing explicitly the role of fathers and the impact they can have on the health and well-being of mothers and infants.¹ It provides an overview of the available evidence on mothers' depression, fathers' roles in new mothers' depression, the prevalence of fathers' own depression and factors associated with its development, and the impact of fathers' depression on infants and children. It looks in particular at whether it is possible for fathers to ameliorate the impact of mothers' depression on their infants by acting as a buffer and presents the available evidence on tested interventions.

Databases searched include MIDIRS, Cochrane, Medline, ScienceDirect, PubMed, Embase, IBSS, British Nursing Index, PsycInfo, ASSIA, NCT and Google Scholar. Terms searched were 'father + depression' 'father + postnatal depression' 'father + postpartum depression' 'father + pre-natal depression' 'partner + postnatal depression'.

Mothers' depression

Reducing the prevalence of depression in the mothers of young babies is important for women's experience of the transition into motherhood. It is also a major public health issue for the whole family. Feelings of despair, panic, inability to cope, and even suicidal thoughts and of putting her baby up for adoption can be experienced by affected mothers¹ together with problems with her relationship with her partner.² Impact on the baby can last for a long time. Even when the mother's mood improves the outcome for her child may not.³ Babies of depressed mothers tend to be more 'fussy' (that is, they cannot settle or be soothed and may cry for long periods, even though they are healthy and their basic needs are met). They also tend to be less responsive to caretakers' facial and vocal expressions, more inactive and have elevated stress hormones compared to infants of non-depressed mothers^{4,5} and are at least two to three times more likely to develop adjustment problems,

including mood disorders.⁶ Cognitively, outcomes are poorer at 18 months⁷ and, among boys, also at GCSE.⁸

Mothers' depression is associated with their own personality and a range of perinatal, infant-related, partner-related and other factors. There are also partner-related factors including a poor relationship with the baby's father, his being unavailable at the time of the baby's birth and his provision of what is perceived by her to be insufficient emotional or practical support, including low participation in infant care. Other risk factors include his holding rigid sex-role expectations, or being critical, coercive or violent.⁹

Fathers' role in mothers' depression

The father's functioning as a partner, a father and a support person is central to the lives of the mother and the baby. A father can contribute significantly to their well-being, even under the most difficult circumstances, and if his support is not forthcoming this represents a significant deficit for the family. The Millennium Cohort study, which has been following babies born in the year 2000, found only 4.4% of mothers saying they were 'not in a relationship' with their baby's father at the time of the birth. And even among that tiny and theoretically most 'disengaged' group, 25% of the fathers signed the birth certificate and 25% (not necessarily the same 25%) were still in touch with infant and mother nine months later.¹⁰ Redshaw & Heikkila found only 0.3% of fathers (three in every thousand) unaware of the pregnancy.¹¹

Not only are the fathers overwhelmingly present but depressed new mothers are more likely to turn to and receive support from their partner than from any other individual, including medical staff.¹² One recent United Kingdom (UK) survey of 3,000 mothers and 2,000 grandmothers suggests that today, 70% of new mothers turn to their partners for emotional support, compared

with only 47% in the 1960s. Cox et al found perceived support by the baby's father in a sample of young and highly disadvantaged mothers strongly correlated with lower rates of depression.¹³ And a shorter length of hospital stay among women with pre/postpartum psychiatric disorders was found to be strongly and positively correlated with supportiveness by their (male) partner.¹⁴

Fathers' own depression

As is the case with maternal depression, estimates of paternal depression vary widely depending on the characteristics of the sample and the measure of depression used. Nevertheless, new fathers' depression rates have been found to be double the national average for men in the same age group in Denmark¹⁵ and the US.¹⁶ Mild to moderate depression is most likely.¹⁷ A meta-analysis including 43 studies, which adjusted for methodological discrepancies and excluded studies in which the number of cases could not be clearly determined, as well as those based on data from common databases (to ensure no duplication of data) found an average 10.4% of fathers depressed both before and after the birth. Differences were observed across study locations with higher rates of prenatal and postpartum depression reported in the United States than the international average (14.1% vs 8.2%). Methodological challenges included reporting of minor depression in some studies but not others, a factor accounting for some of the heterogeneity. Due to the unusually high level of stressors experienced by fathers younger than 18 years, they were excluded. The men's depression was found to peak three to six months postpartum, although so few studies followed the men beyond three months that this interesting finding should be treated with caution.¹⁸ Maternal depression was also found to peak during these months (41.6% of women). Most studies are of first-time fathers and there is no study that reliably compares

depression rates between first-time and other fathers.

Pre-natal depression is not always correlated with depression postnatally. For example, Ramchandani et al found only half the men who were depressed before the birth also depressed eight weeks afterwards.¹⁹ Two studies have examined both stress and depression and found stress to be, on average, higher than depression in men prenatally, with the reverse true postnatally.^{20,21} This finding may be associated with expectant fathers' well documented concerns about the safety of their partner and baby during pregnancy and birth.

It appears that the more tenuous the relationship with the mother, the more likely it is that the father will be depressed. 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 mother, 19.9% were depressed.²⁰ Interacting factors (multiple stressors) and selection effects (some of the most disadvantaged fathers being found among the 'not involved' group) would seem to explain this in part, so causality cannot be inferred, but the circumstances of the pregnancy are also likely to be relevant: Osborn reports young fathers who are not engaged with their children mainly anguished by that fact.²²

Like young mothers, young fathers exhibit very high rates of anxiety and depression.²³ These are strongly correlated with younger age at onset of fatherhood, exposure to domestic and other violence as a child (including sexual coercion), and no father alive²⁴ and having children with more than one partner.²⁵ 'Being a parent' is one of six issues identified by young fathers themselves as impacting on their mental health, the others being relationships, neighbourhood, family, tobacco use and police.²⁶

Low-income new fathers (many of whom are young) are particularly vulnerable to depression. In a low-income African American sample, 56% of new fathers were found to have 'depressive symptoms indicating cause for clinical concern'. In addition to parenthood, this was associated with 'resource challenges', transportation and permanent housing difficulties; problems with alcohol and

drugs; health problems/disability; and a criminal conviction history.²⁷ This study challenged the view that receiving support from relatives and friends is always positive for fathers, as those low-income fathers participating in the study who received such support tended to be more depressed. Perhaps existing depression had stimulated support or peer-interactions drew them into negative behaviour relating to alcohol or drugs. Perhaps receiving support involved expectations that they would provide reciprocal support (financial or otherwise) that burdened them. This study challenged the view that receiving support from relatives and friends is always positive for fathers. Low-income fathers receiving such support tended to be more depressed. Perhaps existing depression had stimulated support or peer-interactions drew them into negative behaviour relating to alcohol or drugs. Perhaps receiving support involved expectations that they would provide reciprocal support (financial or otherwise), which burdened them.²⁷

As with mothers, the new father's own personality, social factors and past mental health history and current substance misuse affect the chance of his developing depression.^{28,20} Perhaps it is not surprising, given the interdependence of most expectant and new parents, that one study has found a correlation between the mother's personality difficulties and unresolved life events and her partner's depression, although causality cannot be inferred.²⁰

Many studies of perinatal depression in men are dogged by methodological limitations (small sample sizes, cross-sectional designs, varied measures of depression etc.). However, two factors stand out as particularly relevant from the literature.^{29,30,18} The first is a clear association between the father's poor mental health antenatally and postnatally and low couple relationship satisfaction, which is associated with 'disagreement about the pregnancy' (meaning that the man did not want to become a father at this time) and perceived lack of supportiveness from the mother.^{31,25,20,32,33}

The second factor is a moderate but clear correlation between a father's depression and the presence of depression in his partner, with direction of influences not known. One study not only

recorded more depressive symptoms among men whose partners were depressed but also more aggression and non-specific psychological impairment, as well as higher rates of depressive disorder, non-specific psychological problems and problem fatigue. Three or more co-morbid psychological disturbances were common. On measures of anxiety and alcohol use there was no difference between men whose partners were depressed and men whose partners weren't.³⁴

Unlike with mothers, there is no recorded evidence of increase in severe mental disorders in men postnatally.³⁵ However, two earlier studies found that where mothers were hospitalised with a severe post-partum psychological disorder, 42% of their male spouses also had a psychological disorder – compared with 4% in a community sample and 0% among new fathers whose partners did not have a post-partum mental illness.^{36,37} Again, direction of effects is not known; and 'assortative mating' (the widely observed phenomenon of people choosing partners who are like themselves in important respects) may be relevant.

There is one 'outlier': a study of Japanese new parents found no correlation between mothers' and fathers' depression (this may be a culturally specific finding, or a feature of this particular study) but found a strong link with the father's unemployment and – as many other studies have found – with unintended pregnancy.³⁸

The impact of fathers' depression on infants and children

As with mothers, fathers' depression has been linked with infant-related difficulties³² including sleeping and crying problems.³⁹ A direction-of-effects from infant to father has often been implied. However, a pilot study to assess the relationship between paternal mood and infant temperament found direction-of-effects seemingly flowing from father to child. Higher paternal depression scores, more traditional attitudes towards fathering and increased recent negative life events experienced by the father were related to higher infant 'fussiness' scores – i.e., a healthy infant being chronically unsettled and inconsolable.⁴⁰

There is now clear evidence that fathers' depression around the time of birth can be associated with negative outcomes for their children in the longer term. A substantial, UK/US study, which controlled for mothers' depression and for fathers' education levels, found severe postnatal depression in fathers associated with high levels of emotional and behavioural problems in their children (particularly boys) at age 3.5 years⁴¹ and at age 7.²⁸ Pre-natal depression, when it existed on its own, had a lesser effect than postnatal depression,¹⁹ suggesting father to child direction-of-effects. However, in another study, which did not measure postnatal depression, pre-natal depressive symptoms in fathers were correlated with excessive infant crying ('colic').⁴²

Some of the worst effects for children have been found when fathers are depressed both pre- and post-natally,¹⁹ and measurable effects often last longer than the period of depression as is the case with maternal depression.⁴³

The mechanisms through which negative effects on babies and children operate are not fully understood. Both direct and indirect effects seem likely. Fathers' depression puts at risk the quality of the relationship between the parents⁴⁴ and is likely connected with increased couple conflict, which, in turn, may be linked with children's adjustment problems.⁴⁵

Depressed fathers may be less involved with their babies,⁴⁶ less attached to them⁴⁷ and/or feel and behave more negatively towards them⁴⁸ with decreased warmth, sensitivity and responsiveness, and increased hostility, intrusiveness and disengagement.⁴⁹ Some studies have found fathers' depression impacting more negatively than mothers' on their parenting behaviour.⁴⁹ Wanless et al found depressed fathers using a flatter tone of voice with their infants;⁵⁰ and Paulson et al found nine-month-olds with depressed fathers using 1.5 fewer words at age two than the children of depressed mothers, possibly because the depressed fathers (but not the depressed mothers) were found to read 9% less often to their infants and be less likely to sing and tell stories.¹⁶ However, Field and colleagues' found depressed fathers interacting as positively with their infants as other fathers;⁵¹ and McElwain & Volling found them less intrusive.⁵² While this sounds

like a 'positive, it may be indicative of disengagement.⁴⁹



Depression in both parents has been found to have a 'double whammy' effect. When both parents are depressed they are least likely to follow good-health guidelines with their babies – e.g. putting them to sleep on their back, breastfeeding, not putting them to bed with a bottle.¹⁶ When both parents are depressed and the depressed father spends medium/high amounts of time caring for his infant, his depression can exacerbate the negative effects of mothers' depression.⁵³ Only 30% of the partners of women hospitalised for postpartum psychiatric disorders are categorized by the researchers as supportive.¹⁴ In many cases, this will be due to their own depression and parenting stress.³⁴

Ameliorating the impact of mothers' depression: 'father-as-buffer'?

Only a very few studies, mostly of small samples, have looked at whether fathers' involvement and behaviour can help moderate the negative impact of a mother's depression on her child. This may be very important because infants of chronically depressed mothers have been found to learn in response to fathers' (but not mothers' or other women's) infant-directed speech suggesting that their disappointment with their mothers can translate into lack of responsiveness towards women in general.⁵⁴ A small observational study of 25 families found that where mothers suffered from persistent depressive mood, most infants had established joyful relationships with

their fathers, and infant-father attachments were secure.⁵⁵ Similar findings are reported by Hossain et al.⁵⁶

Other studies have found fathers helping to shield the infants of chronically depressed mothers from negative outcomes through providing more optimal stimulation and arousal modulation⁵⁷ promoting greater maternal responsiveness to their infants⁵⁸ and minimising mothers' over-control.⁵⁹ A study that followed a large group of US children over 10 years found that although mothers' depression was in general related to escalating child behaviour problems, this was not the case among children who said their fathers were highly involved in their lives.⁶⁰ And women who, as children, experienced maternal rejection and/or had a mother who experienced depressive symptoms have been found to be much less likely to develop depressive symptoms themselves if their relationship with their father is remembered as positive and 'accepting'.⁶¹

However, not all studies have found 'buffering'. Where family problems are extreme and maternal warmth and acceptance very low, a positive father-child relationship may not prove sufficient 'buffer' on its own⁶² particularly where children are very young⁵³ or the father is depressed himself. Goodman found the partners of depressed women generally demonstrating less optimal interaction with their infants due, it seemed, to their own increased levels of depression and parenting stress.⁶³ The extent to which the father is available to interact with the infant and support the mother is also likely to be important. Where mothers had been depressed and the father had worked long hours (particularly at weekends) in the first two years of their baby's life, poor developmental outcomes for their child were found through to age 10, especially among boys.⁶⁴

One explanation for the elevated risk of behavioural and developmental difficulties in the sons of affected mothers is offered by the finding that fathers have been found to have unusually high amounts of interaction with insecure-avoidant infant girls – the group with whom mothers interact least of all.⁶⁵ In another study, fathers' positive parenting (self-reported) plus substantial time spent caring for his infant, were found to

moderate the long-term negative effects of the mothers' depression on the child's depressed/anxious mood – but not on their aggression and other 'externalising' behaviours.⁵³ Again there may be gender-effects here, given that distressed girls are more likely to exhibit internalising, and boys externalising, behaviour.

Interventions addressing perinatal parental depression – and including fathers

We could find no reference to any intervention that sought to ameliorate depression in new or expectant fathers. Young fathers' distress usually goes untreated: their formal contact with psychiatric services is no higher than that of older fathers, whose rates of depression are much lower.²⁴ They tend neither to be offered help with their psychopathology nor to self-refer. For example in one study where the young fathers reported feeling states of anger, sadness/depression, nervousness/tension, helplessness and aggression, few requested services to address these issues. They mostly requested help with jobs and vocational training.²⁶

And what of interventions seeking to draw fathers in as supports for depressed mothers? Roberts and colleagues suggest that the common failure of interventions with depressed mothers to produce positive, sustained results may in part be due to failure to engage with the fathers.³⁴ Dennis recommends that family members, including fathers, be educated about postnatal depression in women so they can recognise the symptoms and seek help for their partners.⁶⁶ The same could be applied to fathers' depression, with mothers (and others) trained to recognise the signs in men and seek help for them. Encouraging mothers to support fathers' autonomy may also prove productive. 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.⁶⁷ And mothers will be provided with support they very much need.⁶⁸

Despite consistent evidence that the

quality of relationship with the intimate partner is associated with postnatal mental health in women, a recent systematic review found only two interventions for the prevention of postnatal mental health problems which included partners.⁶⁸ Both were brief and offered during pregnancy in North America. Firstly, fifty years ago, Gordon & Gordon included men in two additional childbirth education classes which modelled the work of parenting as shared and provided guidance to sensitise men to the demands for women of having a baby.⁶⁹ Significantly fewer 'emotional upsets' were found in women in the intervention than the standard care group six months postpartum. More recently Midmer et al conducted a randomised controlled trial of two additional three-hour classes, conducted mid-pregnancy versus a standard childbirth education program for women and men.⁷⁰ The additional classes focused on increasing couples' appreciation of new mothers' common feelings of isolation, ambivalence, conflict, resentment and guilt, and gaining skills for managing pressures from extended family, a fretful baby, and the redistribution of household chores. Problem-solving and communication techniques were practised in role-play activities. When followed up six weeks postpartum, women and men in the intervention group had significantly lower anxiety than those who received standard childbirth preparation and the effect was sustained at six months postpartum. While there were methodological problems with both these studies, indications were positive. Even greater success may be achieved by also seeking to increase couples' appreciation of new fathers' common experiences and concerns.

Building on these studies, Rowe and Fisher developed a couple-focused brief intervention ('What were we thinking?') in Australia.⁶⁸ This consists of one postpartum session to address infant behaviour and couple relationship management, with at most five couples per group held on a Saturday to maximise fathers' participation. Evaluation of the intervention with a community sample found dramatically lower instances of depression/anxiety among women who had attended the

couples' group session. Randomised assignment was not made, however, and intervention participants were relatively older and more advantaged. Nor, unsurprisingly, was this brief intervention sufficient to alleviate distress among women with a previous psychiatric history.⁷¹ However, one intervention study in the US is known to have focused on a group of needy mothers with positive results. The study provided one, inexpensive, prenatal session in separate gender groups, focusing on psychosocial issues related to becoming first-time parents, and was associated with reduced maternal distress in the at six weeks postpartum. The key factor seemed to be the women's perception of an increased level of awareness in the men as to how they were experiencing the early postpartum weeks. These mothers also reported greater satisfaction with the sharing of home/baby tasks. No effects were found for the men.³³

In a more extensive intervention with women who were already depressed, a randomised controlled trial in Canada found that where depressed women's partners participated in four out of seven 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.⁷²

Less substantial studies have also produced interesting findings. In a case study of home-visiting support in Australia directed to the father in a couple in which the mother had been treated for depression after the birth, positive effects on father-infant interactions were observed with 'knock-on' positive effects on the mother's parenting.⁷³ A randomised controlled trial in the US in which depressed pregnant women received twice weekly massage therapy from their partners found those who received the massage reporting less depressed mood, anxiety and anger and better relationship quality than women in the control group.⁷⁴ And in Norway, two eight-session courses for ten men, all of whom were the partners of women being

treated for prenatal or postnatal depression were organised through the clinic the mothers were attending, with strong support from clinic professionals and mothers. Over 80% of the men offered the intervention attended; and drop out was minimal (8/10 men completed the first course; 9/10 the second). The men evaluated the experience very highly; and anecdotal evidence from the clinic professionals identified benefits to the women.⁷⁵

An outstanding US website supports men whose partners are depressed to provide effective support: <http://postpartumdads.wordpress.com/information-for-partners/> – although usage has not been evaluated.

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.⁷⁶ 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.

While participation in a fathers' group has been found to assist men in coping with their partner's depression,^{75,77} group interventions may suit only particular types of fathers and in most areas it is not a priority nor will it prove sustainable to run groups for men whose partners are depressed.⁷⁸ While the pilot groups for Norwegian fathers referred to above were enormously successful they have not been rolled out.⁷⁵ Instead, it may be more valuable routinely to draw the father in as part of the support system for the mother and the infant, addressing his understanding of her situation and assessing his needs as appropriate.

A number of 'tools' have been developed to assess expectant and new fathers' mental health.^{79,80} Routinely assessing men's mental health in the perinatal period should lead to identification of treatable problems that would otherwise go undetected – benefiting not only the fathers but the mothers, too, given that 'healthy' men are likely to provide better care and support.³⁴ In a substantial review of the evidence, Melrose points out that depressed fathers may present more as anxious or angry than sad and that symptoms of paternal postpartum depression can be

misconstrued.⁸¹ For example, a new father's irritable mood may be attributed more to infant crying or feeling excluded from the mother–baby bond rather than to a symptom of depression; spending extensive time at work may be perceived as a need to maintain the traditional male provider role rather than as an avoidance behaviour indicative of depression; drinking, drug use, fighting, partner violence and extra-marital affairs may also be open to interpretations other than signs of depression. Yet, these behaviours can all reflect a mood of sadness.

When engaging fathers in support of depressed mothers and their children, a tactful approach may be needed: where new mothers' feelings of autonomy are low or they are depressed or lack confidence as mothers⁸² some may actively exclude fathers, and the fathers may sometimes hang back, fearing their interference could exacerbate the situation.^{82,83} Nevertheless the importance of assessing men's own mental health in the perinatal period and engaging with them as support people for women affected by, or at risk of depression, remains.

Adopting an approach throughout antenatal education that models the work of infant care as a shared task may be important. This needs to take account of unrealistic expectations on the part of mother and/or father, while at the same time helping both partners to optimise opportunities for more equal roles in both earning and caring. High father involvement may also be facilitated through creating opportunities for fathers to develop skills and self-confidence in caring for infants. Key to this will be addressing assumptions relating to gender roles and gendered capabilities held by one or both partners. Raising mothers' awareness of the importance of supporting fathers to develop their own independent caring relationship with the infant and fathers' awareness of the importance of this for optimal infant developing may also be key. And finally, it may prove productive to provide guidance both to sensitise men to the demands that motherhood involves for women and to sensitise women to the demands that fatherhood involves for men.

References

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Key points

- A new mother's mental health is strongly associated with the quality of her relationship with her baby's father, and his support and participation in infant care.
- Severe depression in new fathers is estimated at 10.4% – double the whole population rate for same-age men, but with no evidence of increase in other severe mental disorders.
- Predictors of new fathers' depression include being young, of low income, having a depressed partner and being unsatisfied with the couple-relationship or timing of the pregnancy.
- New fathers' severe depression impacts even on very young children and can affect them negatively (particularly boys) through to age seven.
- Non-depressed fathers who are substantially involved with their infants can shield them from the worst effects of new mothers' depression.
- Depressed fathers may present more as anxious or angry than sad and symptoms of their depression may go unrecognised.
- Antenatal education that models infant care as a shared activity, addresses couple-relationships and sensitises men to the demands for women of having a new baby is correlated with better mental health outcomes for both women and men postpartum.
- Rather than providing support groups for depressed fathers or men whose partners are depressed, routinely drawing fathers into perinatal education, care and as a 'parenting partner' at home, while assessing their needs where indicated, is recommended.

The Fatherhood Institute is the UK's fatherhood think-tank:
www.fatherhoodinstitute.org

- postnatal mental health: clinical management and service guidance. *NICE Clinical Guideline CG45*. London: National Institute for Health & Clinical Excellence; 2007. Available from: www.nice.org.uk/CG45
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