

Why do depressed individuals have difficulties in their parenting role?

L. Psychogiou* and E. Parry

School of Psychology, College of Life and Environmental Sciences, University of Exeter, Exeter, UK

Although existing research has shown that depression in parents has a negative effect on parent–child interactions, the mechanisms underpinning impaired parenting are still unknown. In this editorial, we review core difficulties that have been noted in depressed individuals including reduced positive and increased negative affect, poor emotion regulation, executive function deficits, reduced motivation and rumination, and discuss how each of these can alter parenting. We suggest that these causal processes are inter-related and can interact with one another in affecting parenting. We conclude that an improved understanding of these processes will have implications for the development of more specific and potentially more effective treatments that have the potential to break the intergenerational transmission of psychopathology.

Received 15 May 2012; Revised 20 June 2013; Accepted 2 July 2013; First published online 9 October 2013

Key words: Depression, executive functions, fathers, mechanisms, mothers, motivation, parenting, rumination.

Theoretical models of the role of mothers' (Goodman, 2007) and fathers' depression (Ramchandani & Psychogiou, 2009) in children's development have identified disturbances in parenting as an environmental pathway that explains the link between parents' depression and children's emotional and behavioural problems. However, the mechanisms underpinning impaired parent–child interactions in depressed parents have not yet been properly disentangled. This editorial sets out to identify possible mechanisms producing parenting difficulties. An improved understanding of these causal pathways will help to design interventions that have the potential to break the intergenerational transmission of psychopathology. The focus in this editorial is on affect, motivation, cognition and executive functioning (EF). Common genetic factors can also make an impact on both depression and parenting but a discussion of genetic mechanisms is beyond the scope of this editorial.

Before discussing existing studies and making further predictions based on their findings, we would like to emphasize two points. First, the hypothesized mechanisms may not be specific to depression but may also influence parenting in adults with other conditions including attention deficit hyperactivity disorder, anxiety and borderline personality disorder. Second, the mechanisms are inter-related and

bi-directional influences are likely to occur. For example, negative affect can dampen motivation and readiness to implement parenting goals and weak cognitive control may hinder emotion regulation. Clearly, studies are needed to first establish associations between each of these processes and parenting and second, to investigate their possible interactions. An improved understanding of these processes will have implications for the development of more specific and potentially more effective treatments for parents with depression.

Affect can influence parenting and possibly lead to specific parenting behaviours (e.g. Dix, 1991; Lovejoy *et al.* 2000). Parents who score low on positive affect may interact less with their children or their interactions may have a 'flat tone' but probably they are not hostile or coercive, while parents scoring high on negative affect may be intrusive and excessively critical (Rueger *et al.* 2011). Poor emotion regulation is also common in individuals who suffer depression. A study found that depressed mothers exhibit fewer and poorer emotion-regulation strategies compared with non-depressed mothers (Garber *et al.* 1991). What are the implications of poor emotion regulation on parenting? This is an unanswered question but our prediction is that parents with an inability to regulate their emotions tend to be erratic and unpredictable. They may be emotionally unavailable and experience feelings of shame and guilt over their parenting role.

Researchers have also pointed to the importance of motivation in parenting and have shown that 'maternal love engages a push–pull mechanism' that

* Address for correspondence: L. Psychogiou, Ph.D., School of Psychology, College of Life and Environmental Sciences, University of Exeter, Perry Road, Exeter EX4 4QG, UK.
(Email: L.Psychogiou@exeter.ac.uk)

deactivates brain areas implicated in social assessments and dealing with negative affect and that it 'activates a specific pathway of the reward system of the brain' (Bartels & Zeki, 2004). Parenthood in the postpartum months is also associated with structural changes in brain areas that play a key role in a mother's motivation to be responsive to her infant (Kim *et al.* 2010). This study indicates that interactions with offspring may relate to increased grey matter in brain areas that facilitate a mother's motivation, but these changes in the brain may need adequate levels of mother–infant interactions in order to occur. Given that postpartum depression is highly prevalent in both parents, it is possible that in these cases depressed parents do not have optimal and frequent interactions with their newborns and so do not develop the brain changes or activation in reward-related areas noted in parents without depression (e.g. Kim *et al.* 2010). Thus both depressed mothers and fathers may not find the interactions with their children rewarding and may exhibit withdrawn and disengaged behaviours already noted in the maternal literature. With regard to activation in reward-related brain areas, Leuner *et al.* (2010, p. 465) indicated that 'mothers and fathers might recruit similar neural circuitry, hormones and neuromodulators in the service of parenting behavior', but whether new fathers show alterations in these functions when depressed remains to be determined.

Another process that may contribute to parental depression making an impact upon the quality of parent–child interactions is parental rumination (Stein *et al.* 2012). Rumination, defined as 'a mode of responding to distress that involves repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms' (Nolen-Hoeksema *et al.* 2008, p. 400), is associated with negative thinking and deficits in problem-solving (Watkins *et al.* 2009). In an experimental study mothers with either depression or generalized anxiety disorder and a group of psychologically healthy mothers were assigned to either a rumination/worry or a neutral prime condition. Interestingly, in comparison with the control group, rumination/worry had a significant negative effect on mothers' responsiveness to their babies' vocalizations for both depressed and anxious mothers although the effect was smaller in depressed mothers (Stein *et al.* 2012). One interesting question is whether the strength of the rumination-impaired parenting link differs according to parent's gender. Women may ruminate more than men, but rumination in men can indicate a pervasive cognitive inflexibility (Davis & Nolen-Hoeksema, 2000). We predict that it exerts a stronger effect on father–child rather than mother–child interactions. We also predict that in

unstructured tasks there are differences in levels of responding between depressed and non-depressed parents, but in structured situations, such as helping the child with schoolwork, depressed parents do not differ from healthy parents because the demands of the task help them to be focused.

Finally, cognitive and EF deficits noted in adults with depression can be crucial in parenting (Bogels *et al.* 2010; Barrett & Fleming, 2011; Johnston *et al.* 2012). Support for the role of cognitive and EF on parenting was provided by a study which found that harsh reactive parenting assessed during observed frustration tasks is common only in mothers with poorer working memory (Deater-Deckard *et al.* 2010). Several hypotheses have been made about EF and parenting (e.g. Barrett & Fleming, 2011; Johnston *et al.* 2012). One is that depressed parents do not have the cognitive flexibility to adapt to situations or their child's needs. Problems with prospective memory may affect a parent's ability to set developmentally appropriate goals for their children.

In future research, experimental work that manipulates, for example, the motivation of the parent (e.g. through exposure to rewarding stimuli) to examine the effects of the parent's motivation on parent–child interactions is needed. Longitudinal studies that focus on key developmental periods and investigate links between the mechanisms, parenting and children's functioning are also crucial. Such studies can uncover which mechanisms affect different parenting behaviours and put children into different developmental pathways. Valuable insight can also be gained by uncovering the factors that moderate (or mediate) these links. Contextual factors including marital conflict, single parenthood and low socio-economic status can exacerbate parenting problems. Children's difficult temperament or emotional and behavioural problems can affect parent–child interactions, through for example, increasing negative affect. Characteristics associated with the parent's condition (e.g. current *versus* past depression, co-morbidity, severity and chronicity) and the timing of exposure to parental depression (e.g. whether it occurs in a sensitive period of development) can moderate (or mediate) the link between depression and parenting. These factors can also differentially affect children's developmental outcomes. As a consequence, some groups of parents and children may be more vulnerable and in greater need of receiving treatment and others more resilient (Goodman, 2007).

There are direct implications for translation of the findings discussed above into clinical practice. One key question is where the best place to start is. Continued work aims to establish whether or not treatment of parental depression leads to better parenting and children's outcomes (e.g. Murray *et al.* 2003).

Another option would be to target the aetiological mechanisms discussed. These mechanisms can affect children's development regardless of the parent being depressed at a particular time. For example, interventions can target parents' affect through behavioural activation or by training individuals who experience dysphoric affect to think in a more concrete and specific way (Watkins *et al.* 2009). Further interventions can target poor EF via training that either enhances EF (Deater-Deckard *et al.* 2010) or provides skills for compensating for these deficits that can lead to improved parenting (Bogels *et al.* 2010; Bailie *et al.* 2011). Interventions can also target a parent's emotion-regulation skills. A parenting intervention focused on parents' emotion socialization practices found that after the intervention parents displayed better emotion awareness and regulation and their children had decreased levels of behavioural problems (Havighurst *et al.* 2010).

To conclude, multiple mechanisms may explain the link between depression in adults and difficulties in their parenting role. Future research needs to empirically test these mechanisms and uncover their possible interactions. Such work can help us understand how parenting may put children of depressed parents at risk for psychopathology. An improved understanding of this area can also make prevention and intervention efforts more specific and effective and therefore help both depressed parents and their children.

Acknowledgements

We acknowledge support from the National Institute for Health Research (NIHR) Collaborations for Leadership in Applied Health Research and Care for the South West Peninsula (PenCLAHRC). The views and opinions expressed in this editorial are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health in England.

Declaration of Interest

None.

References

- Bailie C, Kuyken W, Sonnenberg S (2011). The experiences of parents in mindfulness-based cognitive therapy. *Clinical Child Psychology and Psychiatry* 17, 103–119.
- Barrett J, Fleming AS (2011). Annual Research Review: All mothers are not created equal: neural and psychobiological perspectives on mothering and the importance of individual differences. *Journal of Child Psychology and Psychiatry* 52, 368–397.
- Bartels A, Zeki S (2004). The neural correlates of maternal and romantic love. *NeuroImage* 21, 1155–1166.

- Bogels SM, Lehtonen A, Restifo K (2010). Mindful parenting in mental health care. *Mindfulness* 1, 107–120.
- Davis RN, Nolen-Hoeksema S (2000). Cognitive inflexibility among ruminators and nonruminators. *Cognitive Therapy and Research* 24, 699–711.
- Deater-Deckard K, Sewell MD, Petrill SA, Thompson LA (2010). Maternal working memory and reactive negativity in parenting. *Psychological Science* 21, 75–79.
- Dix T (1991). The affective organization of parenting: adaptive and maladaptive processes. *Psychological Bulletin* 110, 3–25.
- Garber J, Braafladt N, Zeman J (1991). The regulation of sad affect: an information-processing perspective. In *The Development of Emotion Regulation and Dysregulation* (ed. J. Garber and A. Dodge), pp. 209–240. Cambridge University Press: Cambridge.
- Goodman SH (2007). Depression in mothers. *Annual Review of Clinical Psychology* 3, 107–135.
- Havighurst SS, Wilson KR, Harley AE, Prior MR, Kehoe C (2010). *Tuning in to Kids*: improving emotion socialization practices in parents of preschool children – findings from a community trial. *Journal of Child Psychology and Psychiatry* 51, 1342–1350.
- Johnston C, Mash EJ, Miller N, Ninowski JE (2012). Parenting in adults with attention-deficit/hyperactivity disorder (ADHD). *Clinical Psychology Review* 32, 215–228.
- Kim P, Leckman JF, Mayes LC, Feldman R, Wang X, Swain JE (2010). The plasticity of human maternal brain: longitudinal changes in brain anatomy during the early postpartum period. *Behavioral Neuroscience* 124, 675–700.
- Leuner B, Glasper ER, Gould E (2010). Parenting and plasticity. *Trends in Neurosciences* 33, 465–473.
- Lovejoy MC, Graczyk PA, O'Hare E, Neuman G (2000). Maternal depression and parenting behavior: a meta-analytic review. *Clinical Psychology Review* 20, 561–592.
- Murray L, Cooper PJ, Wilson A, Romaniuk H (2003). Controlled trial of the short- and long-term effect of psychological treatment of post-partum depression: 2. Impact on the mother-child relationship and child outcome. *British Journal of Psychiatry* 182, 420–427.
- Nolen-Hoeksema S, Wisco BE, Lyubomirsky S (2008). Rethinking rumination. *Perspectives on Psychological Science* 3, 400–424.
- Ramchandani P, Psychogiou L (2009). Paternal psychiatric disorders and children's psychosocial development. *Lancet* 374, 646–653.
- Rueger SY, Katz RL, Risser HJ, Lovejoy MC (2011). Relations between parental affect and parenting behaviors: a meta-analytic review. *Parenting: Science and Practice* 11, 1–33.
- Stein A, Craske MG, Lehtonen A, Harvey A, Savage-McGlynn E, Davies B, Goodwin J, Murray L, Cortina-Borja M, Counsell N (2012). Maternal cognitions and mother-infant interactions in postnatal depression and generalized anxiety disorder. *Journal of Abnormal Psychology* 121, 795–809.
- Watkins ER, Baeyens CB, Read R (2009). Concreteness training reduces dysphoria: proof-of-principle for repeated cognitive bias modification in depression. *Journal of Abnormal Psychology* 118, 55–64.