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Links between parental affect, cognitions, parenting, and child outcomes

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Contributions to Theory and Clinical Practice

Introduction:

“The context of development is as important as the characteristics of the child in determining successful development.” (Sameroff & Fiese 2000. pg. 135).

This thesis was an investigation into child development, and critical factors which impact on this, with particular focus on maternal affect, cognitions, and parenting. This thesis provided an examination of parental characteristics which impact on parenting, and mother-child interaction, as well as examining the context of the family from the parent's perspective. This investigation of the context of family processes forms a guide for the context and successful implementation of community interventions and clinical practice. Young children's experience of the world is primarily determined by their interactions with their parents, and factors which impact on the parent, such as depression, alter parent-child interactions in qualitative ways. An examination of parental attributions suggests their importance in mediating the impact of parental mental health and well-being on their parenting, and child development, including problematic child behaviour. Therefore, interventions which target parental well-being and cognitions form an intervention for the child. However, parental and contextual factors may form a barrier to engagement in interventions and services. Having an improved understanding of factors parents feel are important to their parenting may allow for greater engagement and potential benefit from interventions.

This thesis comprises two papers which examine the processes which mediate the impact of parental factors on parenting and child development, both cognitive and behavioural:

- A review of maternal postnatal depression (PND) and child cognitive development
- A research paper exploring the impact of parental attributions of problematic child behaviour on parenting and child behaviour; and parental perspectives of factors which impact on their parenting.

The outcomes of these papers have related themes. The majority of studies identified in the review found an association between PND and child cognitive development, and some of these studies reported that this association was mediated by parent-child interaction during the early years (for example, Milgrom, Westley, & Gemmill, 2004).

This apparent impact of maternal mental health or well-being on mother-child interactions and on child development links in with the theory of parental attributions as mediators of parental affect and parenting, which may then impact on problematic child behaviour. Interventions designed to improve or manage child behaviour, and preventative interventions designed to facilitate optimal child cognitive development both rely on the mother's engagement. The second focus of the research paper on parental awareness of contextual factors which impact on their parenting may be relevant here in facilitating parental engagement in interventions for child behaviour. Exploration of parental perspectives of factors which impact on their parenting revealed that parents were aware of an array of contextual factors, including those related to the

parent themselves, child and family factors, level of support available, employment and other contextual factors, such as society and the media.

Implications for future research and theory development:

Both the review and research paper indicate the importance of parental mood and affect on parenting and child development. While the review focuses on maternal PND, it emphasises how this appears to impact upon mother-child interactions, and how greatly this may influence attachment security and child outcomes, including cognitive development.

Dix and Meunier (2009) propose a five step action control model of the impact of maternal depression on parenting practices which is relevant here (see Figure 1). They examined the cognitive, affective and motivational processes which appear to be involved in parenting processes, including goal processing, input processing, appraisals, emotion activation and response processing. Their systematic review of 168 papers identified 13 regulatory processes which are involved in this model. They found evidence that depressive symptoms reduce child-oriented goals, attention to child input, and positive emotion; and increase negative appraisals of child and self-competence, positive evaluations of coercive parenting, and negative emotion.

(Figure 1 here)

Parental attributions and parenting:

A particularly salient aspect of Dix and Meunier's (2009) model is the role of parental appraisals and attributions of the child and child behaviour, as well as parental self-efficacy, which formed one part of the focus of the research paper in this thesis. Step 3 of the model concerns parental appraisal, and Dix and Meunier (2009) hypothesise that depressed mothers make appraisals about the viability of their goals in the interaction with their child. Parents are hypothesised to assess their resources and their competence to promote their goals, and then make an assessment based on whether their child's motivations or disposition is likely to contradict the mother's goals or concerns. An interaction between negative affect appears to exist, as depressed mothers are more likely to make negative appraisals of themselves and others (for example, Abramson, Seligman, & Teasdale, 1978; Alloy, 1988; Beck, 1967; Beck, 1976), and these negative attributions or appraisals of child disposition are likely, in turn, to elicit increased negative affect, as well as impacting on their parenting behaviour (for example, Brody & Forehand, 1988; Bugental and Happaney, 2004; Dix, Ruble, & Zambarano, 1989; Larrance & Twentyman, 1983). Dix and Meunier (2009) outline three primary appraisals made by depressed mothers: a) general appraisals of the child and the child's behaviour, b) attributions of cause and outcome of child behaviour, c) judgments about their own competence and level of control over their child. These have been conceptualised as parent causal and child responsible attributions of child behaviour, which were measured using Snarr et al.'s (2009) Parent Cognitions Scale (PCS) in the research paper. Dix and Meunier (2009) found evidence that these negative appraisals and attributions predicted low parenting competence, in that parenting practices became more negative, coercive, overreactive and physical.

The research paper in this thesis found strong associations between high levels of negative parent causal attributions and “ineffective” parenting styles, including overreactivity, laxness and verbosity. Links were also found between child responsibility attributions and parenting overreactivity and verbosity, but interestingly, not laxness. Some associations were found between parental affect and negative parental attributions, and a partial correlation suggested that parent causal attributions may mediate the association between parental stress and overreactive parenting. However, these associations were small, and depression was not found to be significantly associated with negative parental attributions. This may be an artefact of this particular local population, may relate to the measure of depression used (the Depression, Anxiety and Stress scale (DASS-21; Lovibond, & Lovibond, 1995), or perhaps was due to the relatively small proportion of parents in the sample who suffered from high levels of depressive symptomatology. However, the results of the research paper provide some support for the links between negative parental attributions and parenting, as suggested by Dix and Meurnier (2009). This indicates that parental attributions may mediate the association between parental affect and parenting practices, which may then impact on child problematic behaviour.

Effective measurement of negative parental attributions is essential in evaluating the efficacy of programmes designed to alter parenting, and especially those with a cognitive element. The research paper in this thesis indicated that the Parent Cognition Scale (Snarr et al. 2009) may be an effective measure of negative parental attributions associated with ineffective parenting practices and negative child outcomes. Although this measure has not been validated within a UK population sample, the research paper

of this thesis indicates that high levels of negative parental attributions may be associated with ineffective parenting practices in a UK/Welsh population. The small sample size means that these results are merely exploratory, however, and require replication in a larger sample. More research is needed to verify an association between the PCS negative parental attributions and child behaviour, and parental well-being, due to the few significant associations between measures of these areas apparent in the research study. However, the PCS is promising as a brief measure of parental attributional style which may be utilised in research investigating the efficacy of parenting-based interventions, as well as more general research exploring the social-cognitive models of parent-child relationships. A larger sample, with a greater proportion of fathers is required to explore any gender differences in parental attributions.

Another potential area for future research includes elucidating the impact of children's developmental stage on parental attributions. Parenting competence can be viewed as a dynamic adaptational construct which changes as children grow (Teti & Huang, 2005). It is therefore important to gain a clear understanding of the impact of important developmental transitional periods in the child's life, particularly those which the parent regards as important (for example, when the parent believes that the child behaviour has begun to be intentional) on the emotional processes involved in parenting.

Paternal Depression:

Paternal depression and its impact on parenting and child development is also an important area of study which has received less attention than the impact of maternal depression. A particularly new area of research addresses the issue of paternal PND (Goodman, 2004), which suggests that paternal PND may also predict negative child outcomes throughout childhood, independently of maternal depression and other confounding factors (Ramchandani, Stein, Evans, O'Connor, et al., 2005; Ramchandani, Stein, O'Connor, Heron, Murray, and Evans, 2008; Smith, Eryigit-Madzwamuse, & Barnes, 2013). However, research examining paternal depression more generally also indicates its influence on parenting and child outcomes. Wilson and Durbin (2012) examined the impact of paternal depression on fathers' positive and negative parenting behaviours in their meta-analysis. They found that paternal depression has a small but significant effect on parenting, being associated with decreased positive parenting behaviour, positive emotions, warmth, sensitivity and responsiveness, and increased negative parenting practices, negative emotions, hostility, intrusiveness and disengagement. Kane and Garber (2004) found that paternal depression was associated with child internalizing and externalizing psychopathology, and conflictual relationships between father and child. It is important, therefore, that research into paternal depression and its impact on parenting and child outcomes continues, and that consideration is given to paternal depression, as well as maternal depression in programmes designed to reduce the negative impact of depression on families. Paternal mental health forms an important aspect of the context to child difficulties which require assessment and consideration in the implementation of evidence based practices. It is important that research investigating the impact of depression on child outcomes

and the family environment should take into consideration the multiple relationships present in the family (Lamb, 2004; Parke, 2002; Parke & Buriel, 2006). Further research into the processes linking paternal depression and parenting practices, and a comparison to those posed for maternal depression (e.g. Dix & Meunier, 2009) would be beneficial in informing interventions.

Parent and Family Contextual Factors:

Exploration of parental attributions provides an investigation of in-depth interpersonal processes between parent and child, particularly with regards to parental affect. Gaining a comprehensive understanding of the processes impacting on parenting also involves consideration of wider contextual factors. Dix and Meunier (2009) suggest that depressive symptoms may have more impact on parenting processes when characteristics of parents, children and contexts increase the difficulty of parenting. They pose that contextual factors such as poverty, job stress, and marital conflict may lead to more self-oriented goals for parents, more negative affect, and more negative appraisal. The existing evidence-base suggests that the association between maternal depressive symptoms and negative child outcomes is increasingly strengthened by social disadvantage (Fergusson, Horwood, & Lynskey, 1995; Fergusson & Lynskey, 1993; Petterson & Albers, 2001), decreases in social support (McCarty, McMahon, et al. 2003), marital quality (Miller, Cowan, Cowan, Hetherington & Clingempeel, 1993) and lack of father involvement (Mezulis, Hyde, and Clark, 2004). Research suggests that associations exist between problematic child outcomes and wider parent and family contextual factors. Improving our basic understanding of the determinants of parenting

will enhance our understanding of precisely what parenting processes these contextual factors place at risk. This then would allow targeting of these factors through interventions (Teti and Cole, 2011).

Despite the importance of these wider contextual factors which impact on parental affect and parenting, very little research exists which provides any account of parents' perspectives of factors which impact on family processes. Baker-Ericzen, Jenkins, & Brookman-Frazee (2010) conducted a valuable exploration of parents' perspectives of family and contextual factors which impact on engagement in mental health services in a community context. Parents' perspectives of what contextual factors impact on their parenting were explored in the research paper. This indicated that parents were aware of important factors which had been indicated in previous research such as parental factors, level of support, child, family and employment factors, as well as wider contextual factors. This is an important area for further research, as parent and family contextual factors provide not only the context for child development, but also for treatment of child psychopathology and behavioural problems. Parental perspectives of factors important to their parenting and their family functioning may indicate areas worthy of further research, particularly in how these are accounted for in existing interventions.

It is vital that service users are engaged in research informing the development and implementation of interventions. Investigations of parental perspectives of factors important to them and their family may help inform service delivery and planning. The

National Service Framework (NSF) for Children, Young People and Maternity in England (Department of Health, 2004) stipulates that children and parents are involved in the planning of service provision. Additionally, the Welsh standard promotes children and families as essential collaborators in service planning and evaluation (Children's Health and Social Care Directorate, 2005). Various measures are frequently utilised prior to and following parenting courses, but parent's views on the value of the intervention, and suggestions for improvements are not always considered. In this thesis, it was primarily mothers' perspectives which were obtained. This could be considered a starting point, with further exploration of fathers' views an important area for future research.

Implications for clinical practice

Interventions for Child Development:

The findings of the majority of studies included in the literature review suggest an impact of PND on child cognitive development, although caution in interpretation is needed due to the inconsistencies apparent between studies. Child development across childhood, and some studies suggest, into adolescence, appears to be impacted on by maternal depression over a relatively short time period (the first year following childbirth). Combined with the fact that challenges are apparent in detecting and treating child developmental problems later on in childhood (Tough et al. 2008), this provides evidence for an upstream, preventative approach to child development difficulties through improving maternal mental health. Several studies reviewed suggest that aspects of mother-child interactions, including maternal responsiveness (Milgrom

et al. 2004) mediate this apparent association. As such, potential treatment is being evaluated through its impact on mother-child interactions, and child development outcomes. Research suggests that interventions which are focused directly on improving mother-child interactions are beneficial both for cognitive development and mother-child interaction, for example, prolonged psychotherapy (Cicchetti, Rogosch, & Toth, 2000), interactive coaching which focuses on the mother-child interactions (Horowitz et al. 2001), relationship facilitation (Hart, Field, & Nearing, 1998), and infant massage (Glover, Onozawa, & Hodgkinson, 2002; Onozawa, Glover, Adams, Modi, & Kumar, 2001). Additionally, Poobalan et al. (2007) conclude that general treatment of maternal PND can improve mother-child interactions and infant outcomes in their meta-analysis.

An alternative to interventions may rely on the mental health of the infant's father. An important implication of father's PND is, conversely, the beneficial impact which may be provided by a healthy and responsive father as an alternative caregiver for infants of mothers with PND (Hossain, Field, Gonzalez, Malphurs, & Del Valle, 1994). It is important that fathers' mental health is assessed and treated if necessary when maternal PND is identified.

Prevention may also be an effective intervention for PND, as reviewed by the Cochrane Collaboration (Dennis & Dowswell, 2013), where it was emphasised prevention relies on the ability to identify women at risk of developing PND. While several studies have identified several risk factors, such as social isolation, lack of support, disadvantaged socioeconomic status (SES; Boyce, 2003), marital difficulties, and stressful life events

(Da Costa, Larouche, Dritsa, & Brender, 2000; O'Hara & Swain, 1996), research into parental and family contextual factors may clarify not only risk factors, but effective implementation of evidence-based practices (EBPs) for parental PND, and parental depression occurring at other time points during the course of childhood.

The relevance of contextual factors to the implementation of evidence-based interventions:

A current priority in implementing EBP is narrowing the gap between research and community-based practice. Understanding the community mental health service context is crucial in avoiding impractical, inefficient or costly service-delivery of EPBs (Hoagwood and Kolko, 2009). It allows for the identification and manipulation of mediators and moderators of implementation, and therefore may improve the applicability of EBP (Hoagwood and Kolko, 2009). The perspectives and needs of families form a key aspect of the context of community clinics (Herschell et al. 2004; Silverman and Hinshaw, 2008). Parents are fundamental agents in seeking help and initiating treatment from services for their children and have a great impact on the long-term efficacy of treatment (Kazdin 1998; Logan and King, 2001; Yeh and Weisz, 2001). Research indicates that parents are more likely to seek help for their children if child difficulties co-occur with elevated levels of parent and family stress (Gunther et al. 2003; Hammen et al. 1999).

Baker-Ericzen et al. (2010) outline parent and family contextual factors (P/FCFs) as:

“Characteristics of parents’ social, psychological, or intellectual functioning as well as parental attitudes, behaviours, and competencies, and family dynamics and context.” (pg. 398).

These factors appear to form important moderators and mediators of various EBPs, including behavioural and family system treatments for child behaviour problems (Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004; Reyno & McGrath, 2006; Schoenwald, Brown, & Henggeler, 2000; Sexton & Alexander, 2005). They may similarly be relevant for implementation of interventions for PND and improving mother-child interactions. Crucially, these factors appear to negatively impact on engagement in and compliance with intervention, and child outcomes (Beauchaine et al., 2005; Chronis et al. 2004; Miller & Prinz 2003; Reyno & McGrath 2006; Southam-Gerow, Kendall, & Weersing, 2001), especially as EBPs for children with behavioural problems rely almost exclusively on parent participation (Eyberg et al. 2008), as do interventions for PND which target parent-child interaction.

Very little research has explored what factors parents feel have an impact on their parenting when their child has difficult behaviour, and yet addressing, or not, these factors may determine parental engagement and the efficacy of interventions designed to address child problematic behaviour. In the research paper, parents highlighted a range of factors which they believed impacted on their parenting practices, from parental, to wider contextual factors. All parents mentioned parental factors as important, and these were frequently discussed at length. Parental affect and the stress associated with competing demands were discussed as having a vital influence on

parenting practices. Other issues appeared related to this, notably level of social support available. While the forms of support discussed were occasionally the degree of formal support from services, parents also appeared to place great importance on personal social support networks. This was linked in with marital status, as several single parents emphasised the impact of this as detrimental to their ability to parent their child in the way they would like to. Several parents also mentioned financial issues as creating a strain which then impacted on their ability to parent. These results may indicate areas which could be addressed by interventions in order to effectively meet the needs of parents and families, and enhance the efficacy of EBPs.

One key message is that child services may be required to widen their focus of intervention to include other aspects of parental well-being and family factors which appear to impact on the child's difficulties more indirectly (Kazdin, 2000). "Enhanced" parenting programmes attempt to address parental factors (eg. Multisystemic therapy and the Enhanced Triple P parenting programme; Sanders, Turner, & Markie-Dadds, 2002; Schoenwald et al. 1998; Tolman et al. 2008), and family factors (Satterfield, Satterfield & Schell, 1987; Schoenwald et al. 2000). Other EBPs which form "adjuncts" to parent-training interventions focus on parent and family factors, including marital conflict, environmental stressors, and parental depression (Dadds, Schwartz, & Sanders, 1987; Wahler, Cartor, Fleischman, & Lambert, 1993; Webster-Stratton 1994). Research also supports the use of parent-training enhancements such as self-control techniques, social-learning principles, communication, and problem-solving skills which may also address these wider contextual issues (Forehand, Furey, & McMahon, 1984; Miller & Prinz, 1990; McMahon & Forehand, 1984; Webster-Stratton, 1994). Sanders et al.

(2004) demonstrate how parental attributions may be addressed through a parenting programme. They enhanced the Triple P parenting programme by including anger management and attributional retraining, and found that the enhanced programme resulted in greater improvements on measures of negative parental attributions for child behaviour, potential for child abuse and unrealistic parental expectations, as well as other improvements associated with the Triple P parenting programme itself. Some research even suggests that treatment of parental issues in addition to, or instead of parent-training may be effective both in treating child behaviour problems and increasing parenting efficacy (Gunlicks & Weisman, 2008; Pilowsky et al. 2008; Rishel, Greeno, Marcus, & Anderson, 2006; Weaver, Shaw, Dishion, & Wilson, 2008). The research paper findings of parents' endorsement that parental factors and the level of support available have an impact on their parenting suggests that parents may find the introduction of parental aspects alongside parenting-based interventions desirable, or at least acceptable.

Having an understanding of the family context, in terms of characteristics and needs, may help clinicians in tailoring interventions for individual families. This would likely increase the efficacy of community-based EBPs. Routine assessment of parent and family contextual factors could include assessment of the areas outlined by parents in the research paper, including parental well-being (in the form of a validated measure); assessment of other relevant information including employment, financial considerations, marital status and level of available support, as well as parental attributions (perhaps utilising the PCS). Where a deficit or need is detected, this could inform the tailoring of interventions, as well as signposting to other relevant

organisations and services which could meet the wider needs of the family. In this way, engagement in parenting-based interventions could be tailored to the individual family and the child's developmental, social and emotional goals (Webster-Stratton, 2009).

Mindfulness-based parenting:

Parental affect was a key theme emerging from both the review of the impact of PND on child development, as well as interviews with parents in the research paper, and the emerging links between parental affect, parental attributions, and parenting. Parental mood may be an important area which could be targeted either as a part of, or alongside the parenting intervention. While parental depression may be targeted as an adjunct to parent-training, other approaches could address parental affect as an integral part of the intervention.

Mindful Parenting courses might help to address multiple aspects of negative parent child dynamics, as well as parental mood itself. Mindfulness has been shown efficacious in reducing child and adult internalizing and externalizing symptoms, decreasing anxiety, depression and overall psychological symptomatology (Astin, 1997; Brown & Ryan, 2003; Kabat-Zinn et al. 1985, 1986, 1992; Miller et al. 1995; Shapiro, Schwartz, & Bonner, 1998; Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007; Speca, Carlson, Goodey, & Angen, 2000). Mindfulness may also provide a source of "internal support" which could increase emotional regulation alongside decreases in stress and anxiety (Snyder, Shapiro & Treleaven, 2012). Existing research indicates that mindfulness training improves one's ability to cope with stress,

attune to others, and regulate emotions (Shapiro & Carlson, 2009). There is also increasing evidence that mindfulness may help develop security of attachment between mother and child (Siegel 2007; Wallin, 2007).

Bögels, Hellemans, van Deursen, Römer & van der Meulen (2013) examined the acceptability and efficacy of a Mindful Parenting course in mental health care. They reported excellent parental engagement, with a high retention rate, and parents evaluated the course favourably, as valuable and effective in multiple areas of family functioning. They also reported improvements in child's internalizing and externalizing psychopathology symptoms. They observed improvements in parental stress, parenting and co-parenting but not marital functioning. This indicates that mindful parenting courses may prove effective for a broad range of child, parent and family variables.

Duncan, Coatsworth, & Greenberg (2009) emphasises the “moment-to-moment” awareness to the parent-child relationship introduced by a mindful parenting model. This is achieved through developing the ability to listen with full attention during interactions with their children, developing emotional awareness and self-regulation, and viewing parenting interactions with compassion and non-judgemental acceptance. This approach may fit in with attributional theory, and models of how parental cognitions and attributions may interact with parental affect “in-the-moment” to determine parenting behaviours (Dix, 1991). In this way, parental attributions of their child's behaviour may be addressed through a mindful parenting programme, as well as through other “enhanced” parenting programmes (e.g. Sanders et al. 2004).

Methodological limitations

The research presented in this thesis provides an exploration of a relatively novel area in terms of parental perspectives of parent and family contextual factors and their impact on parenting, as well as use of the new PCS. A number of limitations should be considered when interpreting the results of this study, particularly in terms of the challenges involved in completing a study of mixed method design in a limited time frame.

The small sample size of this study is a particular limitation in generalising the results to other populations, and it does not allow validation of the PCS in a UK population.

While parents were recruited from parenting groups run by charities and mental health services, the high proportion of community, charity run groups may have had an impact on the sample recruited in terms of the severity of negative parental affect. This may have impacted on the associations found, as few parents scored in the severe/clinical range of the DASS. It is possible that a higher proportion of parents with severe affective symptomatology would have resulted in more significant associations between parental affect and parental attributions, parenting, and child behaviour.

While the sample size was small, the number of parents of children aged above three was even lower, which limited comparisons of child outcome. Utilisation of another measure of child outcome for children under three could have allowed some comparison between the key variable in parents of this age group. Similarly, the PCS has not been used with children younger than three before the current study. While caution should be

exercised in interpretation of results obtained with parents of children under three, there is no indication in Snarr et al. (2009) that the PCS is unsuitable for use in this age group.

The time constrictions on this study did not allow for a longitudinal design, but an interesting and worthwhile extension of the study would have been to test the hypothesis that parental attributions changed over the course of the Webster-Stratton Incredible Years parenting programme (IY; Webster-Stratton & Hancock 1998). This would have had the potential to be of interest both theoretically, and practically, as an evaluation of the IY parenting programme, and an examination of changes to the proposed associations between the key variables. A longer time span would have allowed for recruitment from more IY parenting groups, and perhaps a larger sample size.

A removal of time constraints would also have benefited the second focus of the study examining parental perspectives of parent and family contextual factors which impact on parenting. While 56 parents consented to take part in the telephone interview, only 22 interviews could be arranged in the available time span. Extending this further to include all 56 participants may have allowed an increased number of factor categories to be considered. As only 16 participants had completed their questionnaire packs, this did not allow for comparison between factors mentioned and parental attributions, which could have been an interesting extension of the study.

Conclusion:

The review and research paper of this thesis indicate links between parental affect, attributions, parenting, and child outcomes. Some key implications for research and clinical practice were outlined in this paper. Replication in a larger study is needed to clarify the suggested links between parental attributions on the PCS and parental affect, and child behaviour. More research is also needed to explore potential gender differences, in both children and parents. This paper also outlined the importance of parent and family contextual factors in understanding the relevant context of community interventions, to remove barriers to treatment through improving the acceptability and efficacy of interventions. The importance of parental perspectives in terms of what factors they feel are important for family processes also allows their input to be considered in service-planning. Mindfulness-based parenting programmes were introduced as a potential intervention which addressed multiple areas raised by this thesis: parental affect, emotion regulation, negative parental attributions of child behaviour, acceptability of interventions, and parenting practices.

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Figures:

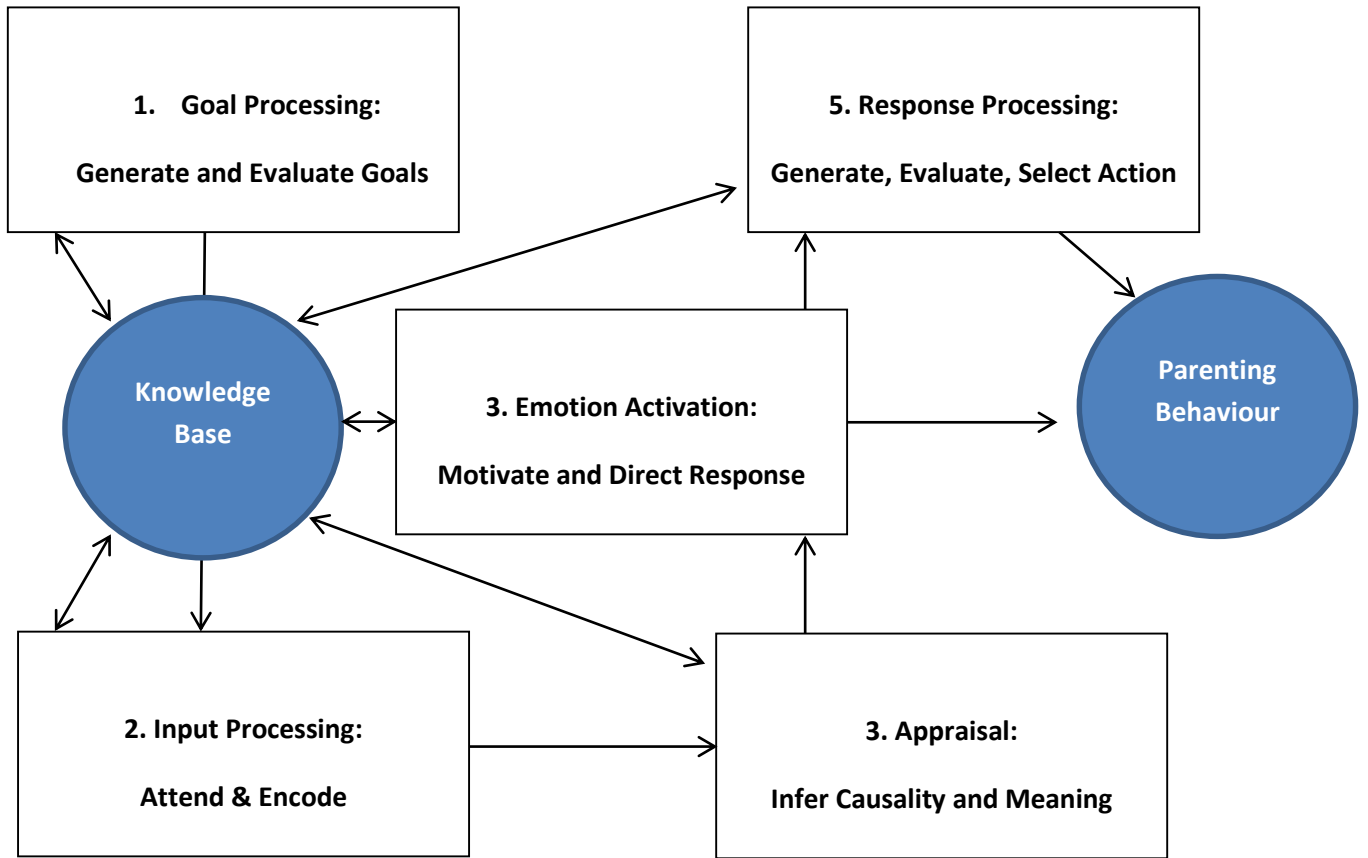


Figure 1. Simplified version of Dix & Meunier (2009)'s action control framework depicting how depressive symptoms affect parenting competence