THE ROLE OF DISSONANCE IN THE EXPERIENCE OF MOTHERING

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Statement of Authorship

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Dedication

This research project is dedicated to my Mum, Valda Wing-Quay (1934-2005), who supported me in the start of this project, but did not live to see it completed.

Table of Contents

List of Tables.

List of Figures.

Abstract

In the field of mothering, maternal cognitions have been identified as important factors in a number of respects. Their role in child behaviour, quality of parenting, and parent-child interactions has been examined. However, maternal dissonance, a specific type of maternal cognition, has been researched little in terms of its importance for the mother. This lack of research has occurred despite the fact that general social discourse assumes the vital importance of dissonant cognitions, based on the notion of the 'perfect mother' image. In the research reported here, maternal dissonance was studied in relation to maternal well-being. With 123 mothers of children aged 8 months - 10 years, in Australia, Study 1 examined a theoretical pathway through which maternal dissonance might operate as a predictor of maternal self-esteem, which was in turn expected to moderate the relationship between maternal stress and maternal well-being. The findings of Study 1 failed to demonstrate a role for maternal dissonance in maternal well-being. Furthermore, while the predicted inverse relationship between maternal stress and maternal well-being was upheld, this relationship was not moderated by maternal self-esteem. Run simultaneously with Study 1, Study 2 evaluated a pre-existing community-based group program called "Creating Happier Mothers". This program was aimed at changing unhelpful maternal cognitions in a one-day workshop through rational-emotive behaviour therapy. This study, with 20 mothers in the intervention group and 20 in an alternative intervention group, found that maternal dissonance decreased after the program for both groups, with evidence of continued decreases at follow-up for the intervention group only. Maternal self-esteem showed an immediate increase for both groups from pre-test to post-test, but decreased again by follow-up for both groups. Maternal well-being was found to be unchanged over time for both of the groups studied. The results of both studies are discussed and strengths and weaknesses of the research considered. It is suggested that there is a need for future research into this maternal domain to clarify findings, and to build a more comprehensive account of the mental world of the mother, particularly with a view to developing evidence-based programs to enhance maternal well-being.

Introduction.

Over the past three decades, research into the quality of parenting has encompassed a diverse range of influences including parental stress, parental cognition, parental characteristics and child characteristics, as well as external environmental factors (Coleman & Karraker, 2003; Johnston & Mash, 1989; McKelvey, Fitzgerald, Schiffman & Von Eye, 2002; Mouton & Tuma, 1988; Nash, 1998; Wishner, 2003). Findings of such research suggest that the quality of parenting is complex in nature, dependent not just on individual characteristics, but also evident in wider cultural contexts (Kim, 1998; Kwok & Wong, 2000; Liamputtong & Naksook, 2003). Outcomes of such research have focused mostly on the child (that is, risk to attachment, risk of abuse/neglect, risk to child development and behaviour management strategies to reduce child problematic behaviour), rather than outcomes for the parent (that is, psychological well-being). In particular, there appears to be a void in terms of research into the experience of mothering from a cognitive perspective. Not only is the general concept of mothering lacking in empirical research, but so too are explanations for beliefs, feelings and behaviours observed during motherhood. Hence, the present research aims to highlight the importance of the mental world of the mother, rather than merely her influence on outcomes for her child.

Social discourse (that is, non-empirical writings) suggests that with the birth of a child, in particular a first child comes the development of the sense of being a mother (Stern, Bruschweiler-Stern & Freeland, 1998). Although considered by many a natural transition, emerging literature in this domain appears contradictory. On one hand, literature suggests mothering to be a natural transition, yet on the other hand it is suggested that mothering is one of the greatest challenges psychically, physically

and socially that a woman will ever experience (Broom, 1994; cited in Lindsay, Harrison & Dickinson, 1999). General social discourse has also raised the issue of the influence of societal expectations on being a 'good' mother. It is suggested that mothers recognize that misalignment between social expectation and the actual day-to- day feelings and functioning in the maternal role can exist. This disparity then contributes to feelings of dissatisfaction in the maternal role, as well as the quality of mothering and attachment relationships (Freiberg, 1992; Tavris, 1972). Indeed, this discourse suggests that differences between a mother's perceptions of what is expected of motherhood and her actual experience of motherhood can compromise self-belief and feelings of competence and confidence, create guilt, and undermine sense of well-being (Balck, 2004; Bernard, 1972; Gordon, 2003; Jackson & Mannix, 2003).

The abundance of social comment in this arena suggests an underlying plethora of empirical research into mothering per se. However, to date empirical research into such views seems limited. As such, the present research examines the difference between self-perceived ideal beliefs of the mother about mothering and her perception of her actual day-to-day functioning as a mother (defined as maternal dissonance in the present study) and its effect on maternal well-being.

This area of maternal dissonance appears in its infancy, with little direct empirical evidence to draw upon. The present project is therefore an exploratory one to examine the role which maternal dissonance might play in a mother's well-being. The original notion for this research was developed from a need to evaluate a community-based group intervention for mothers reporting difficulties in reconciliation between their ideal versus actual beliefs about mothering. In considering maternal dissonance, it became apparent that, although seemingly logical

from a social discourse viewpoint, supportive empirical research was not available. Indeed, from a theoretical orientation little research was found to exist that provided a basis for understanding of this phenomenon for mothers. With this latter point in mind, the present research was then broadened to encompass a model through which maternal dissonance might operate on maternal well-being. As a result, the present research is multifaceted, in that, not only does it evaluate a community-based intervention, but it also explores a theoretical pathway through which maternal dissonance might operate in maternal well-being. Because of time constraints, both of these facets were investigated simultaneously.

So to summarize, the present project was undertaken as two discrete, yet simultaneously run, studies. A theoretical model was developed and investigated in Study 1. Study 1 examined the predictive value of maternal dissonance on maternal self-esteem (a type of maternal cognition). It was expected that the greater the discrepancy between self-perceived ideal expectations of the maternal role and actual self-perceived functioning in the maternal role (maternal dissonance), the lower the perceived maternal self-esteem would be. Building upon this proposed relationship, maternal self-esteem was then to be examined for its role in the maternal stress-maternal well-being relationship. It has been well established in the literature that elevated levels of maternal stress are associated with poorer mental health outcomes for mothers (Barlow, Coren & Stewart-Brown, 2002; Coyl, Roggman & Newland, 2002; Treacey, Tripp & Baird, 2005); however, the role of maternal cognition (specifically, maternal self-esteem) in this relationship has to date, received only a little attention. It was proposed in Study 1 that maternal self-esteem would possess a moderating effect. Therefore, maternal self-esteem was expected to 'buffer' the effect of maternal stress on maternal well-being, such that those mothers who had

high self-esteem would show limited or no adverse impact of stress on their well-being, while those who had lower self-esteem would show increasingly large adverse effects of stress on their well-being.

Secondly, the evaluation of a community-based intervention program was to be investigated (Study 2). Entitled 'Creating Happier Mothers', the underlying premise of this program was based on a rational-emotive behaviour therapy approach, with its aim being to reduce maternal dissonance and increase maternal self-esteem, thereby enhancing maternal well-being. This program was developed out of a sense of client need, and had been implemented in a small group format over the previous two years. Qualitative data collected from previous sessions reported positive outcomes for participants; nevertheless, more formal analysis was deemed necessary to gain more substantive results.

Finally, it should be noted that a unique feature of the present research is the focus on maternal outcome. As previously stated, historically, empirical research in the area of mothering has investigated the maternal impact on outcomes for the child, although, the literature indicates that one value of studying mothers' well-being, and its enhancement, is indeed to benefit their children. However, the present research is not undertaken with child outcome as a specific aim. Rather the present research is viewed as an exploratory attempt to ascertain the effect of maternal cognition on maternal well-being in both a theoretical and clinical domain. Hence, the mother is the focus of outcome.

As a last point to this introduction, although the present focus of this research is upon maternal issues, from time to time, the term 'parental' will be used. The use of this term is a result of the fact that much of the empirical literature to be presented is drawn from parenting research, and as such this term will be used where

appropriate. The remainder of this introduction will review relevant literature with a view to developing the rationale for the present research.

Background literature was derived from multidisciplinary databases which included EBSCO, PubMed, ERIC and PsychLit. Publisher's sites such as Sage Publications and Wiley Interscience were also utilized. Search terms included (maternal/ parental) stress, wellbeing, sense of competence, self-esteem, self-efficacy, satisfaction, dissonance and beliefs. These terms generated the basis of the following information and this is examined firstly for Study 1, and then for Study 2.

Study 1 – Background literature

Maternal psychological well-being

One of the central tenets of the present research is the operationalization of the experience of mothering, in particular, the experience of mothering as an outcome. The definition of this concept in literature appears vague and ill-defined. Keating-Lefter and Wilson (2004) suggest the experience of mothering to be the process through which mothers manage and grieve for multiple losses, while others such as Lerner (2001) define it as changes in life and relationship. Furthermore, researchers such as Barlow and Cairns (1997) define the experience of mothering as the challenges and opportunities that childbirth and child rearing offer. For the purposes of this research project, the experience of mothering will be defined as maternal sense of psychological well-being. Psychological well-being as described by the Child, Youth and Family Consortium (2003) is the degree of good mental health exhibited by parents - in the case of the present research, mothers.

According to the Mental Health Council of Australia, good mental health is a state in which an individual is able to use his or her mental abilities to their fullest extent and make the most of opportunities presented to them. In maternal terms, good

maternal mental health enables the mother to more readily cope with adversities and challenges of raising a child by contributing to stable environments in the home and family (Lau, 2002). From a research viewpoint, measurement of this construct has typically used self-report measures, such as the General Health Questionnaire, Mental Health Inventory and the General Well-being Schedule. This approach has been employed in many general research projects (for example, Brown, Goldstein-Shirley, Robinson & Casey, 2001; Wilkinson, 1995). In the maternal arena, this approach has also been the case (for example, Barlow, Cullen-Powell & Cheshire, 2006; Tan & Rey, 2005). The results of such studies have provided a myriad of information and outcomes. However, much of the focus of this research has been on child outcomes, with parental psychological well-being studied as an independent variable related to outcome factors such as parent-child relationships and parenting style (Albright & Tamis LaMonda, 2002; Mayberry, Ling, Szakcic & Reupert, 2005). For example, maternal depression was studied as one risk factor (of many) and found to be associated with child developmental outcome in low income area (poverty) participants (Loutzenhiser, 2002). A search of the literature suggests that there is much less empirical work investigating maternal psychological well-being itself as an outcome variable, except in terms of its relationship with stress, and for those mothers raising children with significant medical, developmental or behavioural needs (Abbeduto et al., 2004; Barlow, Wright, Shaw, Lagmani & Wyness, 2002). Hence, there seems an absence of literature in the area of maternal psychological well-being for mothers whose children are functioning within the normal range. It appears that as long as the child is doing well, the mother's well-being has been of little interest in its own right.

One area that has investigated maternal mental health as an outcome variable is the transition to motherhood (or parenthood) field (Evenson & Simon, 2005; Perren, von Wyl, Burgin, Sumoni & von Klitzing, 2005). In a study by Perren et al. (2005) parental psychopathological symptoms during pregnancy were found to be risk factors for elevated and prolonged stress and depression in both mothers and fathers. Similarly, in a study by Wilkinson (1995), it was found that the birth of a child, whether it be a first or subsequent child, had a negative effect on variables such as psychological well-being and distress. In particular, at post-partum, experienced parents (those with more than one child) reported the highest levels of psychological distress and lowest levels of psychological well-being. Notwithstanding that study, many of the findings link psychological well-being of parents to outcomes for children. For example, Goodman & Brumley (1990) state that parents with compromised mental health have been found to be less responsive to their children, and express more sadness and irritability toward them. In conjunction with these characteristics, they have a tendency to think more negatively, and in the case of mothers, think of themselves as poor mothers (Taylor & Ingram, 1990).

The types of mental health issues identified for parents are similar to that of the general population and range from mild depression to more serious psychotic illness, though the most commonly presented problems are stress, depression and anxiety (Brazelton, 1993; Child, Youth and Family Consortium, 2003). In particular, McCue Horwitz, Briggs-Gavan, Storfer-Isser and Carter (2007) found in their study that almost a half of their sample who were noted to be depressed at pre-test, also presented with depressive symptoms at a one-year follow-up.

Maternal mental health problems have been linked in research to more negative maternal perceptions, particularly of their child's behaviour and emotional

state (Cornah, Sonuya-Barke, Stevenson & Thompson, 2003; Gurian, 2003; Slee & Cross, 1990; Slee, 1993; Webster-Stratton & Hammond, 1988). Maternal mental health has also been linked to the quality of parenting (in response to the child's developmental need) and child behavioural and mental health problems (Gurian, 2003; Nicholson & Clayfield, 2006; Rigoni, 2007; Whitaker, 2006); however, the nature of the relationship between these two latter variables is still unclear. It would seem that researchers suggest a bi-directional relationship (Hastings, Daley, Burns & Beck, 2006; Orsmond et al., 2003).

In reviewing this area, a single study was found suggesting that child behaviour influences maternal mental health, rather than the reverse. In an early finding of a longitudinal study (still being conducted) of child sleep problems, Lam, Hiscock and Wake's (2003) findings suggested that maternal depression scores were a "consequence rather than the cause of…" infant sleep problems (p.208). These findings seemed to be supported by Sepa (2004), who suggested that infant sleep problems placed mothers at higher risk, and Karraker and Young (2007) who demonstrated a significant correlation between sleep problems and maternal psychopathology. These findings also tend to support other earlier literature where it was acknowledged that mothers with unsettled babies at night were more likely to have higher ratings of psychopathology and stress on instruments such as the GHQ-28 (Gelman & King, 2001). However, it should be noted that there is other longitudinal research that suggests that maternal mental health is predicted by child sleep only in certain age groups (15-24 months) and that at other ages it is maternal mental health that predicts child waking and sleeping (Warren, Howe, Simmens & Dahl, 2006). Generally though, where maternal mental health has been investigated as an outcome variable, it has been in relation to environmental variables such as

social support, economic hardship, employment status and family structure and relationships (Avison, 1997; Gowen, Johnston-Martin, Goldman & Applebaum, 1989; Lee, 2003; Silver, Heneghan, Bauman, & Stein, 2006; Silverman, 1999).

So, in summary, it can be seen that literature regarding maternal psychological well-being as an outcome variable per se is sparse. Furthermore, much of the literature focuses upon mothers with infants and pre-school children (for example, Lam et al., 2003), therefore there appears a need to clarify the effect of compromised psychological well-being for mothers of older children. It should also be noted at this point, that maternal psychological well-being, in much of the literature, has been considered narrowly and almost synonymous with post-partum depression, about which there is a plethora of literature. In the present research, maternal psychological well-being encompasses a far more generalized definition and can occur across the developmental lifespan for mothers, not just in the post-partum period.

Finally, it is important to acknowledge comments made by Evenson & Simon (2005) who state that parenting is not necessarily a mental health advantage, as is the common perception. Indeed, many of the aspects of functioning in the parenting role can put parents at risk of compromised psychological well-being/mental health, whether they be first time or multiparous parents (Wilkerson, 1997).

Maternal psychological well-being and maternal dissonance

Having briefly overviewed maternal psychological well-being research, central to this study is the pathway through which maternal dissonance may operate to affect maternal psychological well-being. Although qualitative studies suggest there to be a direct relationship between these two variables (Delmore-Ko, Pancer, Hunsberger & Pratt, 2000), an overview of quantitative literature suggests that the

relationship is far more complex in nature, and inextricably linked to parental cognition. However, prior to reviewing literature in this area of research, it is important to understand what maternal dissonance is and how mothers come to be affected by it.

Maternal dissonance. The concept of maternal dissonance is rooted in the social psychological domain, being a derivative of the more generalized concept of cognitive dissonance. Cognitive dissonance is defined as psychological discomfort experienced by the individual when there is a discrepancy between two or more cognitions, or between belief, feelings or values and behaviour. With the existence of such dissonance the individual is more likely to avoid information or experiences that are likely to increase dissonance (Festinger, 1956; Huffman, Vernoy & Vernoy, 1994; Smith, 1993). For the purposes of this study, it is the definition of discrepancy between two beliefs - the belief of how a mother would ideally like to act and her belief about how she actually does act - that will be used. Cognitive dissonance theory assumes there to be a drive toward cognitive consistency, where the individual is motivated to remove psychological discomfort and bring cognitions 'into harmony' (Atkinson, Atkinson, Smith, Bem & Hilgarde, 1990).

First forwarded by Festinger (1956), cognitive dissonance is considered to be a motivational state brought about when a person has two cognitive elements that imply the opposite of each other (Wickland & Brehm, 1976). In terms of maternal dissonance, a mother's belief about what mothering should be like, and her belief about what it actually is like (if it does match up to how it 'should' be), is an example of cognitive dissonance. According to Festinger (1956), it is when the individual is unsuccessful in explaining away or rationalizing inconsistencies between the two elements, that cognitive dissonance is problematic.

In relation to cognitive dissonance and mothering, from a social discourse perspective, this phenomenon can be readily understood. Mothers have ideals placed upon them, which in reality are difficult to achieve (Buttrose & Adams, 2005; Magwaza, 2003; Maushart, 1998). The disparity between these two elements then creates dissonance for the mother. The term 'maternal dissonance' is not commonly used in general social discourse; rather exploration has been based on concepts such as the societal expectations of mothers and the discrepancy between these expectations and the 'lived' experience of mothering. One concept that has seemingly influenced the development of maternal dissonance in this arena is the promotion of the 'perfect mother' image.

The 'perfect mother' image. The everyday notion of the 'perfect mother' might best be gleaned from the popular media. One web site defines the image as 'being there for the child 24/7, the child's happiness being fulfilling for the mother, being "tuned in" to the many different levels of the child, including emotions, security and the potential of the child and having the child in an optimal place at the right time' (kindredmedia.com.au). The attainment of 'perfect mother' status is an ideal not just aspired to by mothers, but in a sense, demanded of mothers by society generally. Although this concept of mothering according to various writers (Ambert, 1994; Arendall, 2000; Arnold, 2003; Deacey, 2005) is culturally (socially) constructed, mothers tend to translate this westernized, Victorian-era demand into self-imposed expectations which must be met in order to become a 'good' (and perfect) mother (Deacey, 2005; Hanigsberg & Ruddick, 1999; Hays, 1996; Stern et al., 1998; Yaqub, 2004). According to Deacey (2005), very little research literature exists from the mother's perspective. In one qualitative study by Reisch, Coleman, Glowaki and Konings (1997), using a maternal perspective, it was reported by mothers that their

role was neither automatic nor natural, and attempting to put ideals into practice was difficult resulting in feelings of ineffectiveness, isolation, frustration, self-criticism and lack of confidence. In attempting to achieve this perfect status it becomes apparent to the mother that on an individual level there is a great disparity between what is the societal expectation of motherhood, and what is the reality of functioning in the everyday realm for the mother (Lupton, 2000). In short, mothers cannot live up to this expectation (Buttrose & Adams, 2005) and in trying to do so struggle with feelings of guilt, low self-esteem and low confidence (Francis-Conolly, 1998; Gordon, 2003; Reisch et al., 1997), all of which are intertwined with the psychological well-being of the mother. Although such expectations have been explored in research literature to only a small extent, it should be noted that there is an abundance of social discourse discussing this divide. Hence, when interpreting the above writings, there is a need for mindfulness, as often papers are emotive and based on personal experience and discourse rather than rigorous, empirical evaluation.

According to Glenn, Chang and Forcey (1994), mothering is defined as a socially constructed set of activities and relationships involved in nurturing and caring for people. The core concept of this role transforms a woman into a patient, self-sacrificing, eternally loving person (Dixson, 1991; Peters, 1997). Indeed, Brown, Lumley, Small and Astbury (1994) support this idea, listing the characteristic attributes expected of a good mother such as being loving, caring, with a never-ending supply of patience, calm and relaxed at all times, being understanding and a good listener. Lupton (2000) conducted a longitudinal study into first time parenthood. It was found that, before the child's birth, expectations of motherhood were similar to those described by Brown et al. (1994) and Dixson (1991). The

findings from the twenty-five participants revealed that at pre-birth they expected that in the mothering role they would be devoted, attentive and affectionate towards their children, and would possess unconditional love, and be patient and calm, as well as able to juggle the protection versus autonomy of the child. Hence, their expectation of motherhood was an idealized view. However, at one month post-birth, it was found that in practice, their mothering was different, and living up to the self-perceived ideals of pre-birth was proving difficult. An example provided in that study discussed how at post-birth mothers found that the reading of infants cries and behaviours was not 'natural', and that the role of mothering was both physically draining and demanding, all of which were unexpected outcomes (Lupton, 2000).

The social discourses concerning the disparity between the idealized and real experiences of mothering suggest there are many factors contributing to the acceptance of the 'perfect mother' image as the norm for mothers. Rimi (1997) and Litt (2000) suggest that in past generations information was passed down from mother to daughter, reducing the gulf between ideal expectations of being a mother and actual functioning as a mother. However, the emergence of scientific mothering (where mothers require expert scientific and medical advice to raise their children successfully) has been accompanied by the notion that not being able to manage a child makes a mother less than successful -a concept not acceptable by society's current standards. This area in particular has begun to be recognized more generally of late. In a radio program aired on ABC Radio National on 6/6/2007, this notion (or what is called intensive parenting) was discussed. This approach, through refocusing on parents and matching their individual strengths and skills with that of the needs of the child, is said to establish healthier long-term parent-child relationships (www.hcbh.com/Intensive ParentingEducation.htm). Also supported by findings of a

study by Fischer and Chamberlain (2000) they proposed that parenting (and in particular mothering) through increased focus as a social behaviour has led to parenting being taken from the control of parents (www.abc.net.au/rn/lifematters /stories/2007/1939992.htm) hence, contributing to the idealized notion of mothering. Similarly, the emergence of mass media, it has been suggested, is also influential in promoting the 'perfect mother' image (Ex, Janssens & Korilus, 2002; Johnston & Swanson, 2004). Douglas and Michaels (2004) propose that the media reinforce the idea that only through perfection can a mother truly find contentment, yet at the same time, according to Cavendish (1996), the media devalue the maternal role as 'not a real job'. In particular, the advent of television has provided an important source of information about family and gender roles (Arima, 2003; Larson & Richards, 1994). According to Coll, Surrey and Weingarten (1998) and Johnston and Swanson (2004), the media portray the 'good mother' as a white, heterosexual and married woman, who devotes herself to her children full-time, rarely venturing beyond the domestic sphere. This, as argued by Coll et al. (1998) is a very narrow image, which evokes a sense of inadequacy for mothers who fall outside of the media image. Again, it contradicts the reality of mothering where a mother may hold dual roles, be single or divorced and come from different cultural and sexuality perspectives. Hence, the portrayal of the maternal role in media is in a sense, a myth, realistically unattainable, yet at the same time mothers are trying to uphold it (Lambe, 2005; Maushart, 1998).

Discourses in mothering generally have proposed that mothers who attempt to become the 'perfect mother' as measured by the 'perfect child' put at risk their psychological well-being (Arnold, 2003; Ashley, 2003; DeGeneres, 2000; Francis – Conolly, 1998; Malacrida, 2001; Yaqub, 2004). However, to date there would appear to be an absence of empirical data to support this viewpoint. Perhaps a lack of

operationalization of the ‘perfect mother’ concept has prevented this type of research, or the emotiveness of the concept has been of influence. Nevertheless, there would appear to be a void of rigorous, replicable study on the relationship between the ‘perfect mother’ image and a mother’s cognitive struggle to uphold it and maintain her maternal well-being.

Empirical research and maternal dissonance. In returning to the concept of maternal dissonance specifically, Mauthner (2003) proposes that mothers have two internal voices: the idealized image of motherhood (how they think a mother should be) and the recognition of the reality of motherhood (what they actually think mothering is like for them). When these two cognitions are not aligned then the risk to psychological well-being is heightened. In an exploration of this idea, Tammenti, Paavilainen, Astedt-Kurki and Tarrka (2004) interviewed nine mothers, all of whom experienced pre-existing post-natal depression. Employing a grounded theory approach, the study found that the amount of discrepancy between the expectations of mothering and the reality of mothering was great. It was also revealed that these depressed mothers tended to strive for perfection, and had a compulsion to succeed in their maternal role. Such mothers strictly adhered to advice in childcare manuals, or that provided by infant welfare sources, and clearly viewed how their child should be cared for. Indeed, what the study revealed was that this group of mothers aligned with the image of the ‘perfect mother’, who cared for her child/ren without outside help, as to do so would display signs of weakness. Such cognitive distortions, according to Kendall-Tackett (2001), often become unrealistic “shoulds”, and this “all or nothing” thinking can lend itself to exacerbation of depression symptoms. From their findings, Tammenti et al. (2004) were concerned that such cognitions indicated that parenthood was becoming based on a level of performance that, more

often than not, was unattainable. However, in reviewing the findings of this study, the limitations of a grounded theory approach and a sample of mothers experiencing pre-existing post-natal depression must be borne in mind. It would seem that more systematic, quantitative research with larger samples would add considerably, not only to the findings of Tammenti et al.'s. (2004) study, but also to knowledge in this arena generally, since the literature that does exist, like that of Tammenti et al. (2004), is mainly qualitative in nature.

In another study utilizing a qualitative approach, Delmore-Ko et al. (2000) studied parental perceptions pre and post birth. That study showed that most of the seventy-three participants were fearful of impending parenthood, and envisaged difficulties in their parental role. Although this kind of perception (fearfulness) is apparently negative, Delmore-Ko et al. (2000) concluded that individuals with such expectations (defined as more realistic) of parenthood were better equipped to contend with life stressors in both the pre- and post-natal periods. Also, Delmore-Ko et al. (2000) found that parents with more realistic expectations were less susceptible to depression, and felt more self-efficacious throughout later pregnancy and early child rearing periods. Therefore, less dissonance between idealistic and realistic expectations of the maternal role in the pre-natal period predicted better psychological well-being, and better role adaptation in the post-natal period, at least, as ascertained qualitatively.

When focusing specifically on the scant quantitative research on maternal dissonance it has been the amount of discrepancy between ideal beliefs about mothering and actual functioning in the maternal role (behaviour) that seems to have been the centre of attention. Of particular interest have been outcome variables such as role satisfaction, infant attachment, demographic variables and adjustment to

parenting (Coleman, Nelson & Sundre, 1999), as well as beliefs about partners parenting ability (Bornstein et al., 1996; Bornstein et al., 2003). However, as stated previously, at present, this area of research appears to be in its infancy, as there seems not only a lack of statistically sound assessment measures, but also a lack of replicated research findings.

In a quantitative study, Coleman et al. (1999) studied the relationship between pre-natal expectation and post-natal attitude. According to these researchers, a large discrepancy between ideal expectation and reality was thought to influence difficulty in adapting to early parenting. Commenting that research in this area is scarce, they hypothesized that realistic expectations among first time mothers would be related to more positive post-natal attitudes, whereas both unrealistically positive and unrealistically negative pre-natal expectations would be associated with negative post-natal attitudes (hence a curvilinear relationship). However, contrary to this view, the findings of their data analysis showed that rather than a curvilinear relationship, a positive linear relationship existed between pre-natal expectations and post-natal attitude. The researchers noted that this was a surprising outcome; however, given the nature of the research, they concluded that either methodological flaws (such as group allocation, and homogeneous beliefs of primiparous women) may have contributed to this finding, or that the relationship was, in fact, linear. Whichever may be the case; Coleman et al. (1999) proposed that such research is important since, if mothers at risk of unrealistic expectations pre-natally can be identified, programs to prevent problems can be undertaken.

It should also be noted that a secondary objective of the above study was to evaluate the psychometric properties of a newly constructed self-report instrument called the Pre-natal Expectations Scale. However, given the findings were not

curvilinear the premise on which the scale was developed required modification. Hence, it can be seen from this study that not only is this area of research in its infancy, but well-developed assessment instruments to tap into maternal cognitions are not readily available.

In a more recent study, Harwood, McLean and Durkin (2007) also investigated the relationship between pre-natal expectations about the experience of mothering, and actual post-natal experiences. In that study, it was found that for a majority of mothers pre-natal expectations matched post-natal experiences. In those mothers who reported post-natal experiences that were negative in relation to pre-natal expectation, high levels of depressive symptoms and poor relationship adjustment were reported. However, it should be noted that both of these studies investigated the discrepancy between belief and behaviour, rather than two separate beliefs, as proposed in the present research. This approach (concerned with the discrepancy between belief and behaviour) would seem to be taken more commonly in this area of research.

In an earlier study by Kalmuss, Davidson and Cushman (1992) observing the effects of pre-natal expectation about the parenting role and post-natal assessment of that role, it was found that generally mothers were disillusioned with their role twelve months later. In that study, when expectations exceeded experiences in their relationship with their spouse, physical well-being, self-perceived competence, satisfaction and adjustment to motherhood were all found to be more difficult. Although it should be noted that this earlier study, would seem to support that of Harwood et al. (2007) discussed above.

In an interesting study, Bornstein, Cote and Venuti (2001), studying parenting across cultures, found no relationship between maternal belief and maternal

behaviour; although parents reported more engagement with their child socially than didactically, in actuality the reverse occurred. Hence Bornstein et al. (2001) concluded that parental report reflected values rather than practice. Although not directly related to maternal dissonance, it is an interesting finding with regard to self-perceptions and the influence of values on self-reports of actual behaviours.

Bornstein et al. (2003) conducted another multifaceted study into parenting self-perceptions. Studying the effect of various factors such as maternal sense of competence, satisfaction and role variables on a mother's perception of her parenting, they also studied the influence of parenting dissonance. Bornstein et al. (2003) reasoned that the match between ideal and actual parenting had a psychological significance for parents in terms of their perceptions of success and failure in the parental role. Indeed, they hypothesized that the less discrepancy between a parent's ideal feelings and their actual parenting, the more "competent, satisfied and invested they would evaluate themselves to be, and the better role balance they would think they had achieved" (Bornstein et al., 2003, p. 293). The outcome of the study in terms of dissonance was that maternal dissonance related to only two of four outcome measures, namely, satisfaction and role balance. In specific terms, possessing less dissonant maternal feelings between how a mother actually parented her child socially, and how she ideally wanted to parent her child socially, was important in contributing to maternal satisfaction in the parent-child relationship, as was possessing greater parenting knowledge and higher socio-economic status. Also, it was found that lower dissonance in the maternal perceptions of father behaviour predicted maternal reports of more role balance. Thus, while the findings of that study did not support the influence of maternal dissonance on self-perceived

competence, they did support the influence of maternal dissonance on maternal satisfaction.

In discussing these findings, Bornstein et al. (2003) pointed out that their sample was selective, and that different results may have been achieved when mothers of multiple children, of different ages, or with special needs, as well as single mothers, or divorced mothers from different cultural backgrounds were studied. Another point to be mentioned was the instrument used to measure dissonance in Bornstein et al.'s (2003) study. Called the Parental Style Questionnaire, it was developed by Bornstein and Tamis-LaMonda (cited in Bornstein et al. 1996) as a self-report measure of mother's behaviour toward her infant. In their later study, it was used to explore actual behaviour ratings, with idealized behaviour ratings (Bornstein et al., 2003). The questionnaire had three subscales, the social subscale, the didactic subscale and the limit-setting subscale. The reliabilities of the scales of this instrument in the study ranged from .59 to .69, although reliability for mothers' ratings of their husbands' behaviours was higher (.77 to .84). Dissonance was computed as the difference between actual and ideal behaviour, however, no reliability scores for dissonance were provided. Although no comment was provided in the paper about this measure, it may be that, as in the study by Coleman et al. (1999), this concept proved difficult to assess. It should also be noted, that unlike in the present study, maternal dissonance in Bornstein et al.'s (2003) study was defined as a discrepancy between a belief and a behaviour, rather than between two beliefs. Clearly, much research remains to be done if the role of maternal dissonance is to be well understood.

As a final note to this area, although there is evidence from qualitative studies and social discourse to suggest that maternal dissonance is directly linked to maternal

psychological well-being, the present study will utilize the partial findings of Bornstein et al.'s (2003) study as a rationale to investigate the link between maternal dissonance and maternal cognition. This research focus is based upon Bornstein et al.'s (2003) finding that maternal dissonance was, amongst other variables, related to maternal satisfaction (a type of maternal cognition). The focus of Study 1 is the exploration of a pathway through which maternal dissonance may operate on maternal psychological well-being, and it would seem that an initial step may be the exploration of maternal dissonance as a predictor of maternal satisfaction. However, as discussed later, maternal satisfaction will be considered not alone, but as a component of maternal self-esteem.

Maternal self-esteem

Maternal self-esteem is one of many kinds of maternal cognitions (others include attribution, sense of competence and dissonance). Although definitions of this concept are inconsistent (Ohan, Leung & Johnston, 2000), maternal cognitions generally have received increased theoretical and empirical attention over the past decades (Bugental, 1987; Dix & Grusec, 1985; Johnston, 1996). One area in which there have been numerous research studies conducted is the effect of parental attribution on parenting style (Bugental & Happaney, 2004; Coplan, Hastings, Lagace-Seguin & Moulton, 2002; Slep Smith & O'Leary, 1998). Again, the focus of much of this research has been child-outcome driven, for example focusing on risk to child maltreatment and types of parenting strategies (Mammen, Kolko & Pilkonis, 2003; Wilson, Gardner, Burton & Leung, 2006). Cognitions such as attributions, reasoning, self-perceptions, expectations, information-processing style and belief systems have all been studied (Johnston & Mash, 1989). The study of such cognitions, according to Coleman and Karraker (2003), are important not only to the

understanding of their impact on positive parenting practices, but also to successful personal adjustment to the parenting role. It is also stated by Wilson et al. (2006) that there is a growing body of research in this area.

In terms of the actual role of cognition in parenting, Bornstein (2002) states that parental cognitions serve many functions. According to Bornstein (2002) they generate and shape parental behaviours, moderate the effectiveness of parenting strategies, and help organize parents. They also have been found to influence help-seeking behaviours in parents of 'problem children', as well as hinder engagement of parents in clinical settings, which can influence both retention and clinical outcomes for their children (Morrissey-Kane & Prinz, 1999). So, it can be seen that, overall, parental cognitions can possess both positive and negative influences, as well as being situationally dependent.

Beyond the general nature of maternal cognitions, maternal self-esteem, specifically, is defined as the value a woman attaches to herself as a mother (McGrath & Meyer, 1992). It is differentiated from maternal self-concept and maternal self-confidence in that it possesses both a cognitive evaluation component and an affect value component (McGrath & Meyer, 1992). It should also be noted that this area of self-esteem is specific to parents, and hence different from general self-esteem, where it is acknowledged that a plethora of information exists regarding the relationship between self-esteem and individual well-being (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995; Small, 1988).

Maternal self-esteem encompasses the two components of maternal self-efficacy and maternal satisfaction, and is defined as a person's contentment (liking or satisfaction), and perceived effectiveness (self-efficacy) in the maternal role (Johnston & Mash, 1989). The construction of this concept was based on early

general definitions of self-esteem that emphasized two correlated, but distinct, components. These components were a sense of social value and a sense of personal efficacy or competence (Gecas & Schwalbe, 1983; Harter, 1985; cited in Ohan et al., 2000). One recent paper by Rogers and Matthews (2004), investigating the psychometric properties of the Parenting Sense of Competency Scale for an Australian population, described differing findings for each of the scale components (satisfaction and self-efficacy). However, most recent studies in this area seem to have only investigated either maternal self-efficacy or maternal satisfaction, with much more research being conducted into the influence of self-efficacy in parenting practices. The reasoning for this separation is not clearly established in the literature, and there is some confusion concerning the terms, in that maternal self-esteem, efficacy cognitions and sense of competence are often used interchangeably (Hassall, Rose & McDonald, 2005). In the present research, the term used is maternal self-esteem, composed of the two aspects of maternal satisfaction and maternal efficacy, in keeping with the Johnston and Mash (1989) definition given above. Studies that use this composite approach are discussed here, followed by a discussion of those that investigate only one component (maternal self-efficacy or maternal satisfaction).

Maternal self-esteem has been linked not only to parental perceptions of their children's behaviour (Johnston & Mash, 1989; Ohan et al., 2000) across a diverse range of contexts (Finken & Amato, 1993; Johnston, 1996; Mash & Johnston, 1983; Lovejoy, Verdau & Hayes, 1997; McGrath, Boukydis & Lester, 1993; Rodrigue, Geffken, Clarke, Hunt & Fishel, 1994), but also to effective family functioning (Knauth, 2000; Ohan et al., 2000). It has also been acknowledged that maternal self-esteem appears to affect the way in which parents perceive, react towards and deal with their children. Indeed, when a mother perceives herself as more effective and

competent in the maternal role, she is also more satisfied (Ohan et al., 2000) and vice versa. In a study by McGrath et al. (1993), maternal self-esteem was pre-eminent among a range of parental attributes in being correlated with the developmental outcomes for their children. This finding suggested that mothers with higher maternal self-esteem tended to enjoy improved child outcomes than mothers with lower maternal self-esteem. The findings also showed that mothers with higher maternal self-esteem were more successful in their parenting. The study employed mothers of both full-term and pre-term infants, and unlike previous studies, found that the actual health status of the baby did not influence maternal self-esteem, whereas maternal *perception* of the infant's health did so. As well as highlighting the importance of maternal cognitions, this study again demonstrates the emphasis on child outcomes.

Correlations between low self-esteem in parents and negative parental reactions to their child's problem behaviours have been found (Johnston & Patenaude, 1994), as too has the effect of maternal self-esteem on the child's self-esteem and vice versa (Ridley, 2001). For example, in a study by Mash and Johnston (1983), it was found that the diagnosis of ADHD in a child was significantly related to lower levels of parental self-esteem compared to controls. It was also found that child behavioural characteristics related to the diagnosed disorder were of influence. Finally, it was also shown that the parental self-efficacy component was lower in parents of older children with ADHD, whereas the satisfaction component was not related to age, but rather to diagnosis of the disorder. These findings display not only the complexity of this area of study, but the importance of exploring both components of maternal self-esteem.

In terms of maternal self-esteem and maternal psychological well-being, an unpublished dissertation conducted by Chen (1995) found parental self-esteem (and marital satisfaction) to mediate the relationship between parental life stress and parental depression for mothers, but not for fathers. This however, was the only study found linking maternal stress with maternal well-being through the mediating effects of maternal self-esteem, although Rogers and Matthews (2004) did find the satisfaction scale of the Parenting Sense of Competency Scale to strongly correlate with measures of parental well-being, a finding supported by Young, Karraker and Cottrel (2006). In particular, that latter study found parenting satisfaction to mediate the relationship between parenting efficacy and parental well-being. They concluded that the concept of parenting self-efficacy may be linked more so to parental behaviour and child outcome than parental wellbeing. This research did not however incorporate parental stress into its model, as is the current research's intention.

As stated previously, the present study will utilize the original concept of maternal self-esteem, which encapsulates both maternal self-efficacy and maternal satisfaction. It is reasoned that both maternal self-efficacy and maternal satisfaction contribute to maternal perceptions about the maternal role and the child and as such provided for mutual influence involving maternal psychological well-being and maternal stress. However, to provide a thorough review of literature in this area of maternal cognition, literature related to each component of maternal self-esteem needs to be discussed.

Maternal satisfaction. As acknowledged by Bornstein et al. (2003) and Meredith and Abbot (1987), maternal satisfaction is investigated in research to a far lesser extent than maternal self-efficacy. Farmer (2006) suggests that the reason for this may be that parenting satisfaction is less likely to predict future role tenure: that

is to say that, unlike a work role, whether you as a parent are satisfied or not as a parent, you will always be a parent. Generally, satisfaction in the parenting role, as defined by Johnston and Mash (1989) is the quality of affect associated with parenting. This concept, according to Knauth (2000), is more important to mothers than fathers, and is influenced by various contextual factors including educational level, financial situation and family structure (Rogers & White, 1998; Thompson & Walker, 2004). For example, in a study by Meredith and Abbott (1987), urban parents were measured as having higher levels of parental satisfaction compared to their rural counterparts. In yet another study, Hamill, Fleming and Neill (2002) when investigating two hundred and ten Australian parents found self-efficacy, child's age and caregiver role to be predictive of parental satisfaction.

Research in this area has commonly focused on issues such as the link between marital satisfaction and parenting satisfaction (Kurdek, 1989; Rogers & White, 1998) and the influence of maternal satisfaction on maternal perceptions of child behaviour (Mouton & Tuma, 1988). In terms of the latter, in a study by Norwood (1997), it was found that low parental satisfaction was correlated with the parents' perception of possessing a difficult infant (Norwood, 1997). Similarly, Mammen et al. (2003) found a significant correlation between parental satisfaction (particularly in aggressive parents) and aggressive parental behaviour toward the child. In that study, it was found that the lower the parental satisfaction in aggressive parents, the greater their aggressive reaction toward their child. Indeed, links between parental satisfaction and child behaviour have been found in various studies (Johnston & Mash, 1989; Ohan et al., 2000; Rogers & Matthews, 2004). Rodrigue, Morgan and Geffken (1990) found that parental satisfaction was particularly vulnerable to the effect of the parent's perceptions of child behaviour difficulties.

However, it should be noted that many of these studies have not examined parenting satisfaction in isolation. As such the statement by Rogers and Matthews (2004) that the nature of this construct is complex and there is a "wide range of child and parent factors related to whether a parent feels satisfied in their role as a parent" (p. 96), would appear to be accurate.

Brage, Hudson, Elek & Fleck (2001), examined the level of infant care, self-efficacy and parenting satisfaction in both mothers and fathers. Their findings revealed, firstly, that parenting satisfaction increased for both mothers and fathers over time. Furthermore, at six weeks, twelve weeks and sixteen weeks, mothers' level of efficaciousness was significantly related to their level of parenting satisfaction. Similar findings were noted for fathers' level of efficaciousness at twelve and sixteen weeks. Elek, Hudson and Bouffard (2003) also echoed such findings. Also, as cited previously, the study by Young et al. (2006) found that parenting satisfaction mediated the relationship between maternal efficacy and maternal depressive symptoms at 3 months. So, it would seem that there is some literature showing a link between maternal satisfaction and maternal well-being. This relationship was also supported by Zayas, Jankowski and McKee (2005) in a sense. In that study satisfaction with parenting was predictive of depressive symptoms and the woman's level of education. It was also shown that the level of depressive symptoms mediated the relationship between negative life events and parent's satisfaction.

As a final comment on maternal satisfaction, the relationship between it and role conflict is an interesting one. According to Cowan and Cowan (1992), although work roles have changed, making the barriers less rigid and more egalitarian, family roles have not changed. As a result, conflict between roles is created which has been

found to lead to both parental dissatisfaction and marital dissatisfaction, which has an effect on the individual's sense of internalized competency as a mother or father. This set of relationships is an interesting point, given that the organizational behaviour literature is replete with research and models indicating that role conflict creates higher job stress, which is related to higher job dissatisfaction, which has negative implications for workers' states of mental health (Cotton & Hart, 2003; Ivancevich & Matteson, 2002). Given that mothering is a performed role, akin to any employment role, the lack of available formal theory and research is curious. It may be that the previous statement made by Farmer (2006), that the parental role is, effectively, never relinquished, provides the reason. In closing this area of discussion, it is evident that only a limited amount of research exists, hence the findings of the current study will add to information available in this area.

Maternal self-efficacy. Maternal self-efficacy is a relatively newer area of study (Coleman & Karraker, 2003) and is derived from Bandura's model of social learning (Bandura, 1977; 1982; 1989). It is defined by Johnston and Mash (1989) as the quality of affect associated with parenting (p. 167). In terms of mothering specifically, it may be defined as a mother's belief in her ability to affect her child's behaviour and development. This area of maternal self-efficacy is characterized by a plethora of research findings, across a variety of parental situations, with diverse populations. In general terms, Bandura (1982) originally identified self-perceived efficacious beliefs as the person's belief in their capacity to exercise control over their own functioning and events that affect their lives. Differentiated from locus of control, which pertains to expectancies about whether or not certain actions produce particular outcomes, self-efficacy refers to beliefs about whether one could actually produce certain actions (Bandura, 1997, cited in Holloway, Suzuki, Yamamoto &

Behrens, 2005). Bandura (1977) believed self-efficacy to be the core concept that mediated the relationship between knowledge and behaviour (cited in Teti & Gelfand, 1991).

Defined as the beliefs a person holds as to their capacity to produce effects (Bandura, 1994), translated into a parenting example, Bugental (1987) cited in Teti and Gelfand (1991) states that an individual may have the knowledge needed to console a distressed infant, but may be unable to perform the required behaviour sequence because of self-doubt. This self-doubt produces a marked difference between possessing knowledge and skills, and then being able to use them under taxing conditions (Bandura, 1993). Although not the same as self-confidence, self-efficacy not only influences a person's perseverance and performance, as indicated above, but also their motivation to perform (Bandura, 1993).

According to Bandura (1994) self-efficacy affects cognitive processes (such as goal setting), motivational processes (as stated above), affect processes (such as stress and depression) as well as selection processes (choices people make). Although all are important in the area of mothering, it is the affect process which is of particular importance in this current study. As a result of Bandura's work, in general much literature has been generated in the parental/maternal domain.

One area of research is in the impact of type of efficacious belief and its impact on the mother. Bandura (1982) proposes that individuals can engage in either high self-efficacious thinking or low self-efficacious thinking. Low levels of self-efficacious thinking are linked with low perseverance when faced with a challenging task and more self-blame. Hence, the person tends to give up easily when faced with a challenging task (Bandura, 1982). As a result the person internalizes failure, which can promote or exacerbate symptoms of depression and anxiety, increase chemical

dependence, and produce higher levels of stress and diminished role satisfaction (Bandura, 1982). It can be seen that in many of these areas mothers of difficult children, in particular, may be more susceptible to the outcomes of this type of thinking. In terms of maternal self-efficacy specifically, Coleman and Karraker (2003) stated that when confronted with stress, parent's with low estimates of self-efficacy tended to give up easily (presumably because of failure expectancies), whereas parents possessing high self-efficacy tended to persist at tasks until success was achieved . In theoretical terms, according to Bandura's theory (1982; 1989) increased stress (such as the birth of a baby, with lacking social support) can lead to low self-efficacious beliefs, which can then compromise well-being. This result is supported by the findings of Kuhn and Carter (2006), who when studying mothers of children diagnosed with Autism, found that the level of self-efficacy was negatively (significantly) correlated with depression. The overall findings of that study also suggest that a mother's level of guilt and agency, as well as well-being significantly contributed to the variance of their model of maternal cognition and self-efficacy under examination.

Bandura (1993) also recognized the impact of social comparison, and the stress that this provides when trying to live up to the perceived standards of others. This factor is particularly relevant to the present research, as it has been suggested that many of the ideal beliefs held by mothers are developed through social comparison with other mothers, as well as expectations of other family members, media, and society in general (Litt, 2000; Maushart, 1998). Thus, the influence of to whom the individual compares herself is also relevant to the development of her self-efficacious beliefs (Bandura, 1993).

In addressing the specific notion of parental (maternal) self-efficacy, Kwok and Wong (2000) define this concept as one's confidence in parenting ability to deal competently with difficult child rearing situations. In a more robust definition, Coleman and Karraker (2000) state that parental self-efficacy is a parent's self-referent estimations of competence in the parenting role. This latter definition suggests that both the parent's perception of ability to perform all the expectations and duties of parenting, an often complex and time pressured role, along with their beliefs about the effect they have on their child's development are important (Coleman & Karraker, 1998; 2003).

A bulk of the research into the area of maternal self-efficacy has examined the relationship between it and quality of parenting, along with its role in mediating relationships (Donovan & Leavitt, 1985; Dumka, Stoezinga, Jackson & Roosa, 1996; Kendall & Bloomfield, 2005; Mash & Johnston, 1983; Teti & Gelfand, 1991). For example, Wells-Parker, Miller and Topping (1990) found that parents with high parental self-efficacy possessed more active coping mechanisms when faced with difficult, stressful and challenging parental situations. This capacity argues Pridham and Chang (1992) "allows parents to be freer both cognitively and emotionally to attend to their infant's growth, development and temperament, resulting in more adaptive child outcomes" (p. 129; cited in Coleman & Karraker, 2003). Indeed, in an interesting study conducted by Spoth and Conroy (1993) it was found that the level of parental self-efficacy determined the parent's ability to actively seek resolution to difficult child-rearing situations and become aware of supports such as relevant community resources. That is, when faced with parenting problem, high self-efficacious parents were more likely to seek a solution through books, phone advice lines, parenting programs and Internet sources. So, not only does a sense of high

parental self-efficacy allow the person to experience parenting through a positive framework, but it also influences their confidence to seek out more positive experience, making the role of parenting a win-win situation for both themselves and their child.

Other research has investigated the role of self-efficacy in the parent-child relationship; however the findings of this area are somewhat unclear. Some early research indicates that parental self-efficacy is a moderator (for example, Bugental, 1987), and more recent studies have also supported this. For example, Jackson (2000) proposed that parental self-efficacy buffers the effect of child behaviour problems on maternal parenting stress. Others suggest self-efficacy to have a mediating effect (Coleman et al., 2002; Hastings & Brown, 2002; Teti & Gelfand, 1991). For example, Teti and Gelfand (1991) present parental self-efficacy as a mediator in the relationship between mother's level of competence and her perceptions of infant behaviour, social support and psychological well-being. Other research to study mediation includes Kendall and Bloomfield, (2005) and Gondoli (1995); the latter suggests that parental self-efficacy mediates the response between emotional distress of the parent and parenting responsiveness. Izzo, Weiss, Shanahan and Rodriguez-Brown (2000) found parental self-efficacy to partially mediate the relationship between social support and parental warmth and control, and more recently Binda and Crippa (2000) found a mediation effect for parental self-efficacy when studying belief, knowledge and behaviour.

In terms of the above point, it should be noted that the role of self-efficacy in the maternal stress-maternal wellbeing relationship need not be exclusively moderational or mediational. Given the complexity of the parenting process, in which factors such as parent and child characteristics, psychosocial, cultural and

environmental variables all have a role, there is ample scope for self-efficacy acting as both a moderator and mediator, depending on which aspects of the stress and wellbeing relationship are being focussed on. Notwithstanding the difficulty of specifying precisely when self-efficacy will moderate and when it might mediate the relationship, there is a plethora of studies confirming the important role of maternal self-efficacy in the parenting process.

It has been noted in the literature that research investigating maternal self-efficacy as an outcome variable is sparse (Raver & Leadbeater, 1999). In their study of adolescent mothers, these researchers found that maternal self-efficacy was inversely related to child behaviour problems, regardless of maternal socio-economic status. Maternal self-efficacy was also found to be related to high-risk environmental factors (such as poverty). These finding have been echoed in other studies that also have shown a link between financial resources and maternal self-efficacy (Brody, Flor & Gibson, 1999). So, it can be seen that self-efficacy in parents can be linked to environmental variables, thus displaying the complexity in studying this area.

Prior to continuing the discussion on research in this area, it is worth considering that the literature has noted some limitations in this research domain. Firstly, participants in studies in this area have primarily been mothers whose children are aged between birth and one year (Raver & Leadbeater, 1999). Such a limited scope may be due to much of the research having been conducted from a nursing perspective. There is a body of theory (Mercer & Ferketich, 1990) in nursing literature which proposes that maternal role attainment is paramount within the first twelve months of a newborn's life, thus the development and promotion of efficacious thinking early is important. However, it must also be noted that self-

efficacious beliefs about parenting and children are a constant boon to parents, and therefore should be considered with regard to parents with children of all ages.

A second limitation, which has been noted in numerous studies, is the measurement of the construct. Coleman and Karraker (2003) note that there have been various approaches to parenting self-efficacy described in literature, those being the task-specific, domain-specific and the domain-general approaches. The use of a single approach according to these researchers lowers the potency of outcomes. This conclusion is based on Bandura's reasoning that more specific measures of self-efficacy will produce more reliable results than general measures. However, in terms of the current study, because self-efficacy is not a central variable to the model, it will not be considered in such a fashion, but is worth note at this juncture. Also, as noted previously, the use of self-report and self-appraisal is problematic (Jones & Prinz, 2005; Porter & Hsu, 2003). However, the question remains as to what other methods may be more effective in terms of tapping into cognitions and beliefs, particularly given that behaviour is not always an accurate measure of belief or attitude (Bornstein et al., 2001).

In terms of the relationship between self-efficacy and psychological well-being, research has suggested that those parents who possess low parental self-efficacy tend to give up easily, make internal attributions about failure, and experience higher levels of anxiety and depression (Johnston & Mash, 1989). In a study by Thompson, Gustafson, Hamlett & Spock (1992) it was found that those parents with high parental self-efficacy avoided self-defeating attributions, thus experiencing less anxiety and depression. Such findings were also supported by Pleck (1997 cited in Wong, Lam & Kwok, 2003) who found that the higher the parental self-efficacy, the greater the psychological well-being of the parent. Gross, Conrad,

Fogg and Wothke (1994) also found a link between lower parental self-efficacy and higher depressive symptoms, which in turn predicted the level of depression six months later. This study (as with most in this area) examined other variables (such as perceptions of problematic child behaviour) as well and found a link between depression and higher ratings of child problem behaviours. It was also found that the more difficult the child was perceived to be, the lower the parental self-efficacy. So, it would seem that parental self-efficacy, in terms of its effect on maternal psychological well-being, may be multi- rather than uni-faceted.

In a more recent study by Zayas et al. (2005), concerning parental self-efficacy and satisfaction in parenting in relation to parental mental health, it was found that as parental self-efficacy and satisfaction increased, so too did the parent's sense of well-being. This study focused on minority women of low socio-economic status who were tested in their third trimester of pregnancy and again three months post birth. Along with the above finding, the results of this research also found that negative life events and levels of depression were linked to parental satisfaction and parental self-efficacy both before and after the babies were born. Although research has found that there is a correlation between low parental self-efficacy and heightened maternal depression (Birkeland, 2004; Cutrona & Troutman, 1986; Teti & Gelfand, 1991), it has also found a correlation between low self-efficacy and a more passive style of parenting (Wells-Parker et al., 1990), as well as higher levels of stress. This latter point is interesting given the focus of the first phase of this research. It would seem that correlational data does exist to support the influence of parental self-efficacy on both stress and psychological well-being, but it is the role that self-efficacy may play in the relationship between the two that is of interest in this study. A study by Kwok and Wong (2000) specifically studied the relationship between maternal stress and

maternal well-being and their relationship with maternal self-efficacy. In their study, parental self-efficacy was investigated in terms of its role in modifying the relationship between level of parental stress and mental health of mothers. It was found that given the same level of parental stress, mothers with higher self-efficacy had better mental health compared to mothers with lower self-efficacy. Therefore, it was concluded that parental self-efficacy possessed a moderating effect. These results were echoed in a study by Wong, Lam and Kwok (2003) who studied fathers. Again, it was found that parenting self-efficacy moderated the effects of parental stress on parental mental health. It is the findings of these two studies that provide a partial rationale for the model developed for Study 1 of the present research.

Although Kwok and Wong (2000) and Wong et al. (2003) utilized only self-efficacy, the inclusion of maternal satisfaction as well, through the measurement of maternal self-esteem rather than just maternal self-efficacy, allows a pathway through which maternal dissonance may be examined for its effect on maternal self-esteem. Thus, the present study will utilize the global concept of maternal self-esteem to investigate its possible moderational role in the maternal stress-well-being relationship. By doing this, it is hoped to deepen our understanding of the role that maternal cognitions may play in maternal well-being generally. It should also be noted that both of the cited studies (Kwok & Wong, 2000; Wong et al., 2003) examined a sample of Chinese parents, in contrast to the preponderance of Western, Anglo-European samples. It is possible that their findings were culturally specific. To date no literature has been found with regard to this model in a Western culture, and the present project was to be undertaken with an Australian sample. Finally, it should be noted that a criticism of these papers is the confusing terminology presented. Although both of these papers conclude that parental self-efficacy plays a

moderating role in the relationship between parental stress and parental psychological well-being, they discuss its “intervening” effects, which is suggestive of mediation. It would appear that clarity is required to determine the precise role of the variable.

To summarize, from the available literature, it would seem that both maternal satisfaction and maternal self-efficacy may play a role in the psychological well-being of mothers, and in particular, the maternal stress-maternal well-being relationship. Further investigation into these two variables reveals that together maternal satisfaction and maternal self-efficacy are components of the concept of maternal self-esteem, a variable with considerable early empirical support. Thus, it may be that linking maternal satisfaction and maternal self-efficacy into the single variable of maternal self-esteem, may provide a conduit through which maternal dissonance may affect and be affected by the maternal stress-maternal well-being relationship. The discussion below will review literature relating to the maternal stress-maternal well-being relationship.

Maternal stress

In discussing the maternal stress-maternal well-being relationship, it is important to first review the area of maternal stress alone. Maternal, and in particular parental, stress has been well documented in psychological literature, with studies examining a multitude of influences on it, as well as its effect on numerous other variables. It would seem that volumes could be written on the effect of maternal stress on child outcomes alone.

Generally, stress as defined by Selye is the non-specific response of the body to any demand made on it (cited in Huffman et al., 1994). Stressors, the stimuli that cause stress, can range from major life changes to minor hassles, frustrations or conflicts. In terms of parenting, these stressors can range from the birth itself to

adjustments in the role, environmental variables, work pressure and community resources (Jackson, 2000; Peterson & Hawley, 1998; Schultz & Schultz, 1997). According to Mash and Johnston (1990) parental stress is conceptualized as a complex construct involving behavioural, cognitive and affective components, the effect of which can be and is nearly always negative.

Abdin (1986) proposed a model of parenting stress, whereby both personal factors of the parent and child impact on parenting stress, as well as factors such as parenting dysfunction, attachment and social support. Abdin (1990) suggests that "parenting is highly complex, and is often performed within very demanding situations, with limited personal and physical resources, and often in relation to the child who by virtue of some mental or physical attribute may be exceedingly difficult to parent" (Abdin, 1990, p. 298). Thus, the parental stress derived from such a situation puts at risk the parenting styles and competencies of parents to constructively handle their child's ever-changing needs (Deater-Decker, 2005).

Generally, research into the area of parenting stress has shown a cumulative impact, whether from major life events or daily hassles. As stated by Crnic and Acevedo (1995) "normal stressors of parenting are common and often unavoidable, but it is the pile-up of stresses that produces a greater likelihood of more problematic parenting". It has also been associated with not only adverse parenting behaviours, but also compromised psychological well-being of mothers (Coyl et al., 2002; Crowley & Kazdin, 1998; Finken & Amato, 1995; Le Cuyer-Maus, 2003). Research has also found an impact on the parent-child relationship (McKelvey et al., 2002).

Although, as stated previously, stress in the parenting role is 'common and unavoidable' (Peterson & Hawley, 1998), both Sepa, Frodi and Ludvigsson (2004) and Suarez and Baker (1997) suggested that a lack of social support increases

parenting stress, a common outcome of many research studies. However, more recent literature has suggested that this link between social support and stress may not always be the case. Indeed, Anjali (2006) and Raikes and Thompson (2005) have both found that social support and/or social support seeking is not predictive of parental stress. The researchers of the latter study found the link to be far more complex in nature, incorporating maternal cognition. Such contradictory findings in the general area of parenting stress have also been noted by Deater-Decker (2005) in her editorial review of parenting stress and children's development. She noted that literature is beginning to emerge that questions the longstanding belief that parenting behaviour mediates the relationship between parenting stress and children's emotional and behavioural problems. In fact, the emergence of an understanding of the importance of parental cognitions may explain some of these more recent contradictory findings (Deater-Decker, 2005).

Parenting stress has also been defined as the perception of extra tension in the family network that upsets family balance (Lazarus, 1966 cited in Mouton & Tuma, 1988). This tension can be produced by persons or events either within or external to the family system (Mouton & Tuma, 1988). Based on this definition, considerable literature exists regarding the negative outcomes related to parental stress as well as variables that can predict parental stress. Furthermore, parental stress itself has been studied as a mediating variable.

In investigating parental stress in terms of its influence on negative outcomes, literature suggests that chronic familial stress can contribute to factors such as harsh, reactive parenting, lower maternal responsiveness, and strained child communication functions, as well as overall negative interaction between the parent and the child (Deater-Decker, 2004; Ello & Donovan, 2005; Le Cuyers-Maus, 2003; McKelvey et

al., 2002; Meyers, 1999). According to Deater-Decker (2005), increased parenting stress affects the parenting style, and hence the parent's ability to respond appropriately to the needs and limitations of their child. Studying parenting responsiveness, Le Cuyer-Maus (2003), found that the level of parenting stress was one of a number of important predictors of this variable. That study, although conducted within the constraints of a laboratory setting, suggests parenting stress has a negative effect on parent-child interactions. Similarly, a study by McKelvey et al. (2002) observing the effects of parenting stress on mother-child interactions, explored the mediating role of coping. Investigating this relationship in one hundred and five mother-infant dyads, the level of stress was found to be predictive of the quality of the mother-infant interaction (although coping was not found to be a mediating factor). Thus, a mother with lower stress relating to her parenting role was more likely to exhibit more positive interaction with her infant, whereas a mother with higher parenting stress was more likely to exhibit more negative interactions (McKelvey et al., 2002). In the same vein, McBride, Schoppe and Rane (2002) established that mothers of temperamentally difficult children reported higher parental stress and more psycho-social problems, and as a result this affected their cognitions around being a mother. It should be noted at this point that, as in the case of other research discussed earlier, much of this research (with the exception of McBride et al., 2002) has focused on child outcomes, rather than maternal outcomes.

According to McKelvey et al. (2002), parental stress can also be reflected in daily hassles in the sense that daily hassles can produce a cumulative effect (McKelvey et al., 2002, Peterson & Hawley, 1998; Webster – Stratton, 1990). Peterson and Hawley (1998) found that the cumulative impact of perceived stress in parenting, whether through major life events or daily hassles, was associated with an

adverse impact on parenting behaviour. The results showed that a threshold of three stressors combined created significant parental stress for both first-time parents and parents of two or more children. With these findings, such thresholds could then be used to identify individuals 'at risk' of experiencing problems in parenting (Secco & Moffat, 2003).

Research into the idea of thresholds has revealed similar factors which put parents 'at risk' of stress. In a study by Wishner (2003), the three factors were maternal depression, social support and perception of child behavioural problems. Supporting these findings, Secco and Moffat (2003) found social support, perceptions of child temperament and maternal emotionality to be predictive of parental stress, explaining 46% of the variance. Although the above studies view psychological well-being as an antecedent of parenting stress, other research has indicated that psychological well-being, such as depression and anxiety, is a *result* of parental stress, rather than a contributor or predictor. In terms of the predictive variables for parental stress, research shows these to be many and varied, although some of the factors listed next have been shown to have been affected by stress as well as having an effect on it. Factors such as perceptions of child behaviour, child characteristics and child affect have all been shown to be intimately associated with the level of stress perceived by parents, as too have factors such as the relationship with the baby's father, family safety and risk and pre-natal concerns about parenting (Beck, Hastings, Daley & Stevenson, 2004; Chang et al., 2004; Combs-Orme, Cain & Wilson, 2004; Lindsay et al., 1999; Raikes & Thompson, 2005; Tan & Rey, 2005; Wisher, 2003).

In summary, maternal stress has generally been considered in terms of the demands of parenting, its context and available resources, with a particular focus on

child outcomes. A plethora of literature is available, yielding complex, and sometimes inconsistent, results. However, for present purposes, what is of particular concern is the relationship between maternal stress and maternal well-being.

The relationship between maternal stress and maternal well-being

This relationship has been well documented in a generalized context, and the findings tend to be echoed in the maternal context. Deater-Decker (2004) states that researchers have known for decades that psychological well-being is linked to degrees of stress in daily life. The findings yielded in this generalized context suggest that heightened levels of stress compromise individual well-being, both psychologically and physically (Cooper, Dewe & O'Driscoll, 2001; Cotton & Hart, 2003; Cox & Rial-Gonzalez, 2002; Ivancevich & Matteson, 2002). In particular, stress at work has been shown to impact negatively on organizational areas such as absenteeism and turnover, as well as individual areas such as employees' psychological well-being (Ivancevich & Matteson, 2002).

In a maternal context, similar findings have emerged. Research in this area has found that heightened levels of maternal or parental stress are related to lower levels of maternal well-being (Treacey et al., 2005). In a study by Hamlyn-White, Draghi-Lorenz and Ellis (2007) it was reported that parents' (all of whom had children with a disorder) level of stress was related to the parents' psychological functioning (such as depression). Treacey et al. (2005) found parents were sensitive to the level of stress felt, and the flow on effect was that parental self-efficacy was reduced, hindering positive perceptions of child behaviour, with parents displaying more punitive parenting strategies. The outcome of viewing the child more negatively was also identified in a study by Tan and Rey (2005). In another study, Barlow et al. (2002) reported that, compared to normative data, mothers of children

with juvenile idiopathic diabetes were at greater risk of anxiety and depression, with the greatest stressor being the mother's concern about the side effects of medication on her child. Further study by Thorpe, Dragonas & Golding (1992a; 1992b) also found that significant parental life events (stressors) predicted impaired parental well-being – defined as depression and post-natal depression. Similarly, in a study by Coyl et al. (2002), path analysis revealed that economic and relationship stress directly affected maternal depression (and also frequency of spanking), that in turn indirectly influenced infant attachment security. Finally, in other studies, Crnic and Greenberg (1990) identified that the level of parental stress was related to both the physical and psychological well-being of parents, while Gelfand, Teti and Fox (1992) and Miller, Gordon, Deniele & Diller, (1992) found stress to be linked to depression and anxiety. More importantly, to the current research, both Kwok and Wong (2000) and Wong et al's (2002) findings support the relationship between heightened levels of parental stress and parental well-being. So, it can be seen that findings of research into the relationship between maternal stress and maternal well-being tend to echo those in life generally (that is, organizational literature) in that high levels of stress tend to compromise well-being.

As a final note, according to Bunting (2004), parents receive little education in becoming parents, yet the stress associated with this role is enormous. Stress is a product not only of the internal family environment (such as the parent-child relationship), but also of external environments, such as social expectations. Schultz and Shultz (1997) propose there to be many variables that all contribute to the stress of being a parent, which then influences, amongst other things, parenting experiences.

Although it has been suggested that poor parental mental health may contribute to parental stress (Douglas, 1998), it should be noted that the possibility of a bi-directional relationship exists (Deater-Decker, 2004). However for the purposes of this research the model proposed by Kwok and Wong (2000) will be employed whereby maternal stress is assumed to be a condition that primarily precedes and influences maternal psychological well-being. Kwok and Wong argue that there is sufficient evidence to support the particular form this relationship and it is argued that extending their model would allow for the notion that self-esteem might both moderate and mediate the link between stress and wellbeing.

Summary and model for Study 1

The literature reviewed thus far has shown that research into the area of maternal cognition is in its infancy. Although some areas have a far longer research history (for example, maternal self-efficacy), other areas are sparse in terms of study (for example, maternal dissonance). A study being primarily mother-focused is also unique in this area, as most outcomes presented have been child-driven. Social discourse has made demands over a substantial period of time for such research, giving the mother an equal weight in the mother-child relationship. However, it is not unreasonable to assume that through increasing understanding of maternal cognition, gains for child outcomes can also be made.

Study 1 of the present project was designed to evaluate a theoretical model proposed to explain the pathway through which maternal dissonance might operate on maternal well-being and, more specifically, the maternal stress-maternal well-being relationship. Based on the above literature review, it is proposed that level of maternal dissonance will be a direct predictor of maternal self-esteem, in that the greater the level of maternal dissonance, the lower the level of maternal self-esteem.

Furthermore, maternal self-esteem is proposed to moderate the maternal stress-maternal well-being relationship. This model is illustrated on p. 63. Maternal self-esteem will be conceptualized as consisting of both self-efficacy and maternal satisfaction components, while maternal dissonance will be viewed as a discrepancy between ideal beliefs about mothering and the mother's beliefs about their actual functioning in the maternal role.

Study 2 – Background literature

As stated at the beginning of this literature review, the present project was planned as two discrete, but simultaneous, studies (Study 1 and Study 2). Study 2, to be discussed forthwith, had the purpose of evaluating a community-based group program aimed at reconciling ideal maternal beliefs with maternal beliefs about actual functioning in the maternal role. Having already been established in the community for approximately two years, a more formal evaluation was deemed necessary. Qualitative evaluations and verbal feedback offered by previous participants had been overwhelmingly positive.

Called 'Creating Happier Mothers', the program was based upon a rational-emotive behaviour therapy perspective. The intervention targets mothers who possess high ideals about their maternal role, and are struggling in their efforts to perform their role. Specifically, the intervention strategy focuses on the reduction of irrational (ideal) beliefs. The present study was aimed at investigating whether this group intervention would impact upon maternal dissonance and also maternal self-esteem along with the psychological well-being of the participants (that is, the variables being examined simultaneously in Study 1).

Many researchers have discussed the importance of developing parenting programs directed toward modifying parental cognitions with a view to decreasing

maternal stress and increasing well-being (Kwok & Wong, 2000; McCleary, 2002; Van As & Janssens, 2002). Kwok and Wong (2000) state "that on a cognitive level parents should be helped to identify their irrational beliefs and negative thinking, and understand how these contribute to their stress" (p. 64). Yet, to date, only a small amount of literature exists evaluating the effectiveness of group programs to enhance parental cognition specifically. In terms of maternal dissonance, only a single early piece of research could be found. Nevertheless, with the emergence of theoretical literature displaying the importance of maternal cognitions to areas such as quality of parenting, parent-child interaction and maternal well-being, there is a shift toward promoting the development of programs targeting maternal cognition. This sparse literature will be reviewed below.

Maternal cognitions and intervention strategies. It is assumed that the reduction and modification of unhealthy thoughts reduces maternal dissonance, which, in turn, is thought to have positive benefits for the mother. Qualitative outcomes tend to support this view. For example, lower maternal dissonance has been found to be associated with more positive transitions to parenthood (Delmore-Ko et al., 2000). Similarly, women with more unrealistic expectations (particularly pre-natally) have been shown to struggle with early parenting (Coleman et al., 1999). In that latter study, it was recommended that new mothers be provided with education and counselling to help cope with demands of the maternal role (Coleman et al., 1999). In fact the researchers proposed that programs aimed at bringing the mother's expectations more 'in line' with reality could decrease the likelihood of difficulties associated with the arrival of a new baby, and assimilation into a new role. As a result the birth would not be perceived as a 'crisis'. This perception would create lower maternal stress for the mother, thereby reducing the risk of compromised

psychological well-being (Coleman et al., 1999). However, even though such statements have been made, there seems to be a dearth of available literature focusing on group interventions aimed at modifying maternal cognitions - in particular, maternal dissonance. In fact only one such study, discussed below, has been found to date.

In reviewing this area, an unpublished dissertation by Goldberg (1987) was located, reporting the use of an experimental design to study the effect of an intervention aimed at modifying psychological dissonance and negative maternal attitudes in sixty-six mothers of hearing-impaired children. The intervention lasted for four one- and- a- half-hour sessions, conducted fortnightly over eight weeks. The findings of this study did not support the hypothesis, although the researcher did note that anecdotal remarks by participants indicated positive outcomes for mothers involved in the intervention. Pre-test, psychological dissonance and negative maternal attitude were "assumed" by the researcher; however, in the post hoc analysis this assumption was found to be flawed because of positive ratings of the child by the mother detected in pre-test measures. Needless to say, it would appear that more investigation is required to understand such outcomes more thoroughly.

Although there appears to be little evaluative research in the area of maternal dissonance, programs focusing on maternal self-efficacy appear more frequently in literature. A study commonly cited in various papers (Coleman & Karraker, 2000; Coleman et al. 2002) is that of Gross, Fogg and Tucker (1995). Studying forty-six parents of two-year old children, the study aimed to evaluate an intervention program targeting effective parent-child interaction. The study was conducted over a ten-week period using video vignettes, modelling strategies, information provision and social support. The outcome of the study showed that, through teaching effective

interaction to parents, maternal self-efficacy and parent-child interaction were increased, while the level of parenting stress decreased. At one-year follow-up, Tucker, Gross, Fogg, Delaney and Lapporte (1998) found that gains in self-efficacy, stress and maternal-child interactions were maintained. Such positive findings were echoed in a study by Sanders et al. (2004) who found that attribution retraining and a standard behavioural family intervention were both effective in increasing parental self-efficacy and decreasing parenting distress. In that study, the attribution retraining with anger management training was also found to improve negative attribution in parents in the short term. A third study evaluating a program specifically developed to increase self-efficacy in parents of children with Asperger's Syndrome was that of Sofronoff and Farbotko (2002). They established that mothers' sense of self-efficacy was improved as a result of the intervention, compared to fathers both at four weeks and three months. Comparing both a one-day workshop format and a six-session format, they found no difference between the two.

In reviewing parenting programs that have had an effect on maternal cognition, one evidence-based parenting program, which has reported cognitive gains for participants, is the Triple P- Positive Parenting Program. A large scale empirically based program, it was developed as a "system of parenting and family support to assist parents to promote their child's social competence and manage common developmental and behavioural problems" (Sanders, Turner & Markie-Dadds, 2002, p. 173). Turner and Sanders (2006) outline five levels of this program, ranging from the most basic level, which is a media-based parental information campaign, to the most advanced level, where the program is individually tailored to families in up to eleven group or individual sessions. The advanced level of intervention (Enhanced Triple P) utilizes, in conjunction with other approaches, a cognitive perspective.

Evaluation of this level has shown that in group sessions, Enhanced Triple P is effective in reducing the intensity of aversive parenting practices, as well as increasing parenting self-efficacy (Cann, Rogers & Matthews, 2003; Turner & Sanders, 2006). These gains have been shown to be maintained over a three-month period (Hoath & Sanders, 2002), across child age groups and cultures (Leung, Sanders, Leung, Mak and Lau, 2003; Ralph & Sanders, 2003). The aim of Triple-P is to "prevent severe behavioural, emotional and developmental problems in children by enhancing knowledge, skills, confidence and teamwork in parents" (p. 4., Sanders, 2003). These results are encouraging for both child and parental outcomes and provide evidence for the applicability of effectively enhancing parental cognitions through group work, in particular self-efficacy. It should be noted that no evaluative research was found regarding programs aimed at increasing maternal self-esteem more broadly or maternal satisfaction specifically.

In discussing the evaluation of maternal cognition intervention programs, it must be noted that, as in other areas of parental cognition, researchers also discuss the need to develop effective interventions to lower parental stress (Nystrom & Ohrling, 2004; Peterson & Hawley, 1998). In reviewing theoretical studies discussed in Study 1, it can be seen that reducing stress is important to facilitate better outcomes, not only for children, but also for maternal mental health. Clinically, such programs have also been found to be successful. In a study by Kazdin and Whitely (2003) comparing a parent problem-solving strategy (addressing parental stress) with a child management training strategy, it was found that parent and child outcomes were enhanced under the parent problem-solving strategy. Thus, parental stress was reduced. The study employed parents of children who were currently involved in a clinical setting. The findings also revealed that the problem-solving (stress-

reduction) strategy was the more effective one for reducing the barriers parents can experience when their child is in treatment. In a second intervention focused on parenting stress, Treacy et al. (2005) identified significant reductions in the Parent Domain of the Parenting Stress Index in mothers after a nine week stress management intervention. They also noted secondary gains in terms of improvement of the parenting style of participants. Along with the above two studies, Costin, Litch, Hill-Smith, Vance & Luk (2004), Wolfe and Hirsch (2003) and Ralph and Sanders (2003) have also found intervention strategies to be effective in decreasing parenting stress. So, it would seem that there is available evidence to suggest the efficacy of group programs to reduce parenting stress.

Along with a lack of research into group interventions for maternal cognition, group programs focusing on enhancing maternal psychological well-being also appear scant. As discussed previously, this may a result of much of the literature being focussed on child outcomes. Nevertheless, it would seem that compromised maternal psychological well-being, such as anxiety and depression, is captured within more generalized treatment programs, such as the Better Outcomes in Mental Health strategy and the allied health initiative accessed through general practitioners (www.primarymentalhealth.com.au), rather than any specifically designed for mothers. Onunaka (2005) states that, when parental mental health issues arise, the normal course of action is counselling or psychotherapy, medication or alternative therapy. Indeed, Jackson and Mannix (2003) note that avenues of support for mothers experiencing problems in their maternal role are hard to find. In their qualitative study they discovered that parent effectiveness training was not accessible to all families, and most of those who gained professional help found the therapist hostile and blaming, hence they ceased the service (five out of six participants). This

is a disturbing finding given that policy recommendations emphasize the importance of increasing awareness of mental health issues in the mothering population (Child, Youth and Family Symposium, 2003). It would seem there is an absence of research evaluating the development of treatment programs targeted specifically at enhancing maternal psychological well-being. Those that have been found will be reviewed below.

Horowitz et al. (2001), when evaluating an intervention to enhance maternal responsiveness toward their infant, reported that the intervention itself did not have an effect on depression scores. Indeed, no interaction between group and time was found, rather there was a significant decrease in depression for both groups over time. Similarly, Stewart-Brown (2006), when evaluating a home-visiting program targeted at high-risk families, found that this program had no effects on the mental health of the participating mothers. These findings were echoed by Hagan, Evans and Pope (2004), who found that their CBT program did not impact on maternal depressive symptoms. However, in presenting this finding some research in the parenting domain does suggest there to be secondary effects for parents' well-being as a result of participation in general parenting skill programs (Costin et al., 2004; Luk, 1999; Stewart-Brown et al., 2004). Reading (2004), when evaluating the Webster-Stratton parenting program, found that the mental health of parents, as tested by the General Health Questionnaire, improved both immediately post intervention, and at six months follow-up. Another encouraging result is that Cann et al. (2003) who noted that parents following the Triple –P Parenting Program recorded improvements in depression, anxiety and stress. These supported Meyer et al's (1994) earlier findings that maternal well-being could be increased though an individual family-based intervention. Also, in a review of parenting program literature, Bunting (2004)

suggests that maternal depression and stress can be reduced through parental involvement in parenting programs. So it can be seen that findings in this area of research are contradictory in that some researchers report secondary gains for parents, while others report no gains.

In an interesting meta-analysis of the effectiveness of parenting programs in improving maternal psychosocial health, Barlow et al. (2002) concluded that, overall, parenting programs could make a "significant contribution to the short-term psychosocial health of mothers" (p. 223). This meta-analysis did, however, stress that more evidence is required before more solid conclusions about the long term efficaciousness of such programs can be drawn. It should also be noted at this point that the growing volume of post-natal depression literature has not been included in the above review for which community-based programs abound. This decision was made as the present research is concerned with maternal well-being more generally, and extends to mothers of children up to 10 years old, while the research on postnatal depression is focused on the mothers of infant children.

Finally, parenting can be viewed as a developmental experience in which the children's ages and stages aid their parents in their development as a parent. For example, parents of school-aged children need to develop realistic views of their children's achievement, separating their own needs for achievement from the needs of their children, whereas such considerations are immaterial for parents of infants and toddlers, who can be found to be negotiating changes in roles and relationships with their own parents. However, there would appear little on offer (beyond individual therapy) for parents whose psychological well-being is being compromised because of their parenting role, but who nevertheless have socially and emotionally well-adjusted children. Although outcomes suggest that broader parenting programs such as Triple

P may be useful, without problematic child behaviour such resource services may not be sought, or even considered by parents. It is often such parents who present to privately practising psychologists and clinicians for assistance. It is the author's observation that, in such instances, clinicians assist parents (more often than not mothers), from their own professional practice orientation. This assistance can range from behavioural perspectives to cognitive perspectives or to a combination of these, or to even more existential methods, so, there is no consistency in the type of treatment or program being received. Mostly, this assistance is individual therapy, not reported in the literature and therefore not open to the more rigorous scrutiny of the scientific community. This lack of scrutiny, it would seem, creates problems for those working in this area, and hence requires future study (although outside the domain of the present research) and rectification. The program to be evaluated here is typical of such programs, being developed from a clinical need and firstly implemented through individual therapy in a private practice. With the presentation of multiple numbers of mothers displaying similar issues, the program was formalized into a group intervention and implemented. Its evolution had progressed to the point where a quantitative analysis was required. From the above literature review, it is reasonable to assume that the program to be evaluated, 'Creating Happier Mothers,' has the potential to enhance the maternal experience. On the basis of the model developed for Study 1, through the modification of maternal cognition, whether it is decreasing maternal dissonance or increasing maternal self-esteem, benefits should be expected. The remainder of this review will examine the principles upon which the 'Creating Happier Mothers' program operates.

‘*Creating Happier Mothers’*

‘Creating Happier Mothers’ is based on the cognitive philosophy of rational – emotive behaviour therapy (REBT). This perspective proposes that through the replacement of irrational beliefs with more rational beliefs, personal difficulties such as stress can be resolved. Within the constraints of the present research, the concept of irrational thoughts can be considered akin to ideal views of mothering (irrational expectations placed on the mother, by herself, about how she ‘should’ mother) and rational thoughts akin to realistic views of mothering (what she actually believes her mothering is like). Using this model, it becomes clearer as to how, on a theoretical basis, the intervention might operate and enhance the mothering experience.

Rational-emotive behaviour therapy. REBT is a popular form of cognitive therapy developed in the 1950s by Ellis and Harper (Robertson, 2001). Its aim is to enhance personal growth and coping skills through a practical, action-orientated approach. REBT focuses on the present and, in particular, currently held attitudes, painful emotions and maladaptive behaviours that often sabotage a fuller experience of life (Robertson, 2001). REBT places a high premium on cognitions (Ellis, Harper & MacLaren, 1998), with the assumption that cognition, emotion and behaviour are not disparate human functions, but are intrinsically integrated and holistic (Ellis et al., 1998). At its foundation, REBT possesses two components, firstly, a general theory of human personality and secondly, a process for therapeutic change (Ellis & Harper, 1975). Based on the views of Epictetus, Marcus Aurelius and Woodworth’s stimulus – organism – response theory (Ellis & Harper, 1975), the most basic premise of REBT is that almost all human emotions and behaviours are a result of what people think, assume and believe, not only about themselves and others, but about the world in general. According to Ellis et al. (1998), when people are disturbed they think, feel

and act in a self-defeating, dysfunctional manner. The central tenet of Ellis and Harper's REBT therapeutic process is the ABC model. It is this schema which provides causal explanations of pathological emotions and irrational behaviour (Ellis & Harper, 1975). There are, according to Ellis and Harper (1975), three elements of this schema, namely A (the activating event), B (the belief) and C (the consequence). The activating event (A) is an individual's perception and inference concerning the events and conditions that impact upon him / her, the beliefs (B) are the rational and irrational beliefs that an individual brings to bear upon specific activating events, and the consequences (C) are the irrational emotions or behaviours that result from faulty beliefs about the activating event. Theoretically, according to Ellis and Harper (1975), when the response to an A is positive, then the experience of the emotional consequence is pleasurable and happy, therefore the behavioural consequence is to approach or attempt to continue repeating A. However, if the perception of A is negative (or seen as blocking or sabotaging goals), then the reaction is unpleasurable and A is to be avoided or eliminated. In a therapeutic context, REBT aims to help people change their irrational beliefs to more rational ones, thus improving emotional and behavioural functions. According to Ellis and Harper (1975), this technique is carried out through employment of the disputation method (D). Disputation is a directive approach grounded in the here and now (Ettinger, Crooks & Stein, 1991). Its initial directive is at a cognitive level, using scientific questioning and challenging the 'musts' and 'shoulds' of individuals. The procedure then moves to an emotive level, where clients are asked to imagine events. Finally, disputation is conducted on a behavioural level, where clients are made to face their irrational beliefs. The aim of this method is to develop a new emotional consequence (E) or effect (Ellis & Harper, 1975). Therefore, the ABC model can be thought of as possessing five stages: A

(activating event), B (belief), C (consequence), D (disputation) and E (new emotional consequence). Although seemingly logical in nature, little research has been conducted into the use of an REBT philosophy with respect to irrational beliefs in the experience of mothering. Indeed, only four studies have been found to date, and these will be discussed following a consideration of research on REBT more broadly applied.

Research into REBT has been generally supportive of the above model. Ziegler and Leslie (2003) tested the hypothesis that a difference in responding to daily hassles would exist between rational versus irrational thinkers. They reported that students who scored higher on irrational thinking also reported significantly higher frequency of daily hassles. In particular, participants with higher scores on "awfulising" and low frustration tolerance scales of the Survey of Personal Beliefs and Hassles Scale also reported a higher intensity of daily hassles. Other studies have also been conducted which display the influence of irrational beliefs on emotional consequences (Culhane & Watson, 2003; Glass & Arnkoff, 1997; Oei, Hansen & Miller, 1993). However, although supporters of REBT would argue that an abundance of literature supports this approach, a limitation cited by others is that much of the literature in regard to its effectiveness is derived from clinical research, with small sample sizes, and often lacking in more stringent experimental controls.

Mental health and REBT. In regard to psychological well-being, according to the REBT philosophy, those individuals with greater irrational tendencies are thought to have poorer mental health (Ellis, Dryden & DiGuiseppe, 2008). These irrational beliefs, according to Ellis (2003) are caused by three main core disturbances, which affect self-talk and hence psychological well-being. Examples of these core disturbances are:

- "I must be thoroughly competent, adequate, achieving and lovable at all times or else I am an incompetent and worthless person" According to Ellis (2003) this thought leads to feelings of panic, anxiety, depression, despair and worthlessness.
- "Other significant people in my life must treat me kindly and fairly at all times or else I can't stand it. They are bad….who should be blamed….for their horrible treatment of me". These types of core beliefs lead to anger and rage (Ellis, 2003).
- "Things and conditions absolutely must be the way I want them to be and must never be too difficult or frustrating….life will be unbearable". This perspective leads to low-frustration tolerance, self-pity, anger and avoidance (Ellis, 2003).

If we view these core beliefs from the maternal viewpoint, it is understandable how mothers who are subject to pressures of being the 'perfect mother' can begin to develop and live by such core beliefs. It is also understandable how parenting, and in particular, motherhood, cannot be considered a mental health advantage, as stated earlier by Evenson and Simon (2005). Finally, it can be seen that an REBT philosophy would appear an appropriate philosophy from which to view, and attempt to change, inappropriate beliefs that mothers can hold about their mothering role. However, at present there is little literature available directly related to the above argument.

REBT and mothering. As just stated, very little research has been conducted into mothering employing an REBT approach. In an early study, Oliver (1988) explored the use of REBT as a tool for changing maladaptive cognition to more adaptive cognition, when active mothering ended. According to Oliver (1988) when the active mothering role ends, the mother needs to redefine and restructure her relationship with her adult children. It is this process which is fraught with maladaptive potential. The results of this study found that REBT was beneficial in

changing maladaptive cognitions to more adaptive ones. However, the effectiveness of this procedure needs to be interpreted with caution, as results were yielded from a clinical setting, again with few of the constraints of more rigorous scientific design. In a more recent study, Greaves (1997) researched parents of disabled children, and the ability of an REBT parent education program to reduce maternal stress. Mothers of children with Down Syndrome were randomly allocated to either a rational-emotive behaviour therapy group, an applied behaviour analysis comparative treatment group or a no treatment control group. The findings showed that, on both the Profile of Mood States and Parenting Stress Index (parent domain); participants who undertook REBT had significant reductions in their levels of stress, compared to the comparative treatment group and the no treatment group. According to Greaves (1997) such findings were a result of the disputation process employed, which resulted in the development of more adaptive cognitions, hence reducing stress in participants of this group. Again lack of scientific rigour precludes the interpretation of these results beyond the sample of the study. In yet another study, Starko (1992) examined the relationship between irrational beliefs and stress in both mothers and fathers. Data from twenty-three couples with children three years of age or younger revealed a moderately strong relationship between mothers' stress and irrational beliefs (r = .40). Irrational beliefs surrounding worry and perfection had the most influence over a parent's level of stress, with sense of competence, depression and role restriction also related to parental irrational beliefs. Finally, a fourth study to be considered is that by Joyce (1995), who examined an REBT-based parenting education program with forty-eight parents. The program included four components (reducing emotional distress through disputing irrational beliefs, implementing rational discipline methods, rational problem-solving and fostering rational thinking traits in their child). The results of

that study showed that the intervention group displayed statistically significant reductions in parent irrationality, parent guilt and parent anger. At a ten month follow-up it was found that the effect was maintained, and there was a reduction in perceived child behaviour problems and changes in parents' irrational beliefs about self-worth. Hence, these results would appear encouraging for the present study. Although only these four studies were identified, their results, coupled with broader research findings in this area, suggest the applicability of an REBT philosophy to the present study on maternal well-being, especially in the light of the existence of irrational beliefs about being the "perfect mother," as discussed previously.

To summarize, Study 2 of the present research will evaluate an intervention program targeted at mothers who possess ideal beliefs about their maternal role. Using an REBT perspective the irrational beliefs will be disputed and replaced with more rational beliefs, thus modifying parental cognitions. Based on current literature evaluating the effectiveness of interventions aimed at modifying parental cognition, it can be seen that most have been successful in their aim. However, the amount of evaluative literature in this arena is sparse, and outcomes from the current study can only serve to expand the body of knowledge. Similarly, the use of an REBT philosophy as the underpinning of the intervention will also serve to expand the applicability of such a philosophy to the mothering domain.

The present study

Belsky (1984) presented a model of parenting that has provided the basis for understanding the complexities involved in parenting (and in this case mothering). This model identifies three domains, psychological resources of parents (mothers), characteristics of the child, and contextual sources such as stress and support (Belsky, 1984). Disruption to any part of this model may compromise effective parenting. In

terms of the present study, the focus will be on the psychological resources of the mother and, in particular, her beliefs and feelings about her role. However, unlike Belsky's model, the overarching outcome of this research will not be the quality of parenting, but rather outcomes for the mother in terms of her psychological well-being, which arguably would influence effective parenting and child outcomes. Nevertheless, Belsky's model still requires note in that one of its key components - the psychological resources of the parent - is the focus of the present study.

Broader contextual issues. The present research contributes to the literature on the maternal experience in several ways. Firstly, because of the definition employed regarding maternal experience (in terms of psychological well-being), the present research aims to operationalize a vague and often unsubstantiated concept. The present research also provides a more detailed understanding of the specific effects of maternal cognitions on maternal well-being from both a clinical and theoretical perspective. Ways in which maternal cognitions may influence maternal well-being will be examined through Study 1, while Study 2 will assess their ability to be changed in a clinical environment.

Secondly, in both studies maternal cognitions will be examined within a community sample. That is to say, they will be mothers of children who are neither clinic-referred, nor possess significant medical or developmental needs. Therefore, maternal cognitions will be examined in a broader context, rather than within the confines of the needs of a child.

Thirdly, focusing on mothers with children 10 years or less has the potential to extend knowledge in this area of research beyond the very early years, as most previous research has looked only at mothers of infants and young children. By

investigating a wider age range, it will promote the idea that mothering issues are significant throughout the mothering lifespan, rather than just in a select time frame.

Finally, in the present study, maternal well-being will be examined within the context of one of its most well-researched risk factors - stress. To ignore the threat that maternal stress poses in relation to maternal well-being would be negligent. By virtue of its inclusion, the findings of the present study should contribute to the diversity and richness of information currently available in this domain of research.

As previously stated, this research was to be conducted in two discrete studies. In Study 1, the model described previously was to be examined. The proposed model is shown in Figure 1 on p. 63. In Study 2, an evaluation of the community-based REBT program entitled 'Creating Happier Mothers' was to be undertaken, with pre-, post- and follow-up testing of an REBT group and an alternative treatment group. Given that the present research consists of two discrete studies, in presenting the method and results sections of this research, the Method section of Study 1 will be presented followed by the Results section of Study 1. After this, the Method and Results sections of Study 2 will be presented. The discussion will provide a synthesis of both studies, in an attempt to make sense of the findings.

Aims and hypotheses

The central theme of the present research is to explore the role of maternal dissonance, a research area in its infancy, within the context of the mothering domain. With very limited previous studies to draw upon, the overall aim of Study 1 is to ascertain the degree of association between two maternal states (namely maternal dissonance and maternal self-esteem) and maternal well-being from both a theoretical and clinical perspective. It was hypothesized that:

1. The degree of maternal dissonance will be inversely related to the degree of perceived maternal self-esteem (that is, low maternal dissonance, high maternal self-esteem; high maternal dissonance, low maternal self-esteem).
2. Maternal self-esteem will moderate the relationship between maternal stress and maternal well-being such that high levels of maternal self-esteem will weaken any relationship between maternal stress and maternal wellbeing.

The aim of Study 2 is to evaluate the effectiveness of the 'Creating Happier Mothers' program in lowering maternal dissonance and increasing maternal self-esteem and level of maternal well-being. It should be noted at this point that, as observed in the literature review, maternal stress is determined by a range of factors such as financial circumstance, social support, child temperament and marital relationship, which the 'Creating Happier Mothers' program is not aimed at changing. Rather maternal cognition about the mothering role is the focus of this program. It was hypothesized that:

3. Maternal dissonance will be reduced from pre-test to post-test as a result of the intervention. These gains will be maintained at a one month follow-up. Maternal dissonance will not change over the same time period for the alternative intervention group.
4. Maternal self-esteem will increase as a result of the intervention. These changes will be maintained at follow-up, one month later. No change will be recorded in maternal self-esteem over the same time periods for the alternative intervention group.

5. Controlling for the level of maternal stress, maternal well-being of the intervention group will be enhanced at one-month follow-up. The level of maternal well-being will not be changed over the same time period for the alternative intervention group.

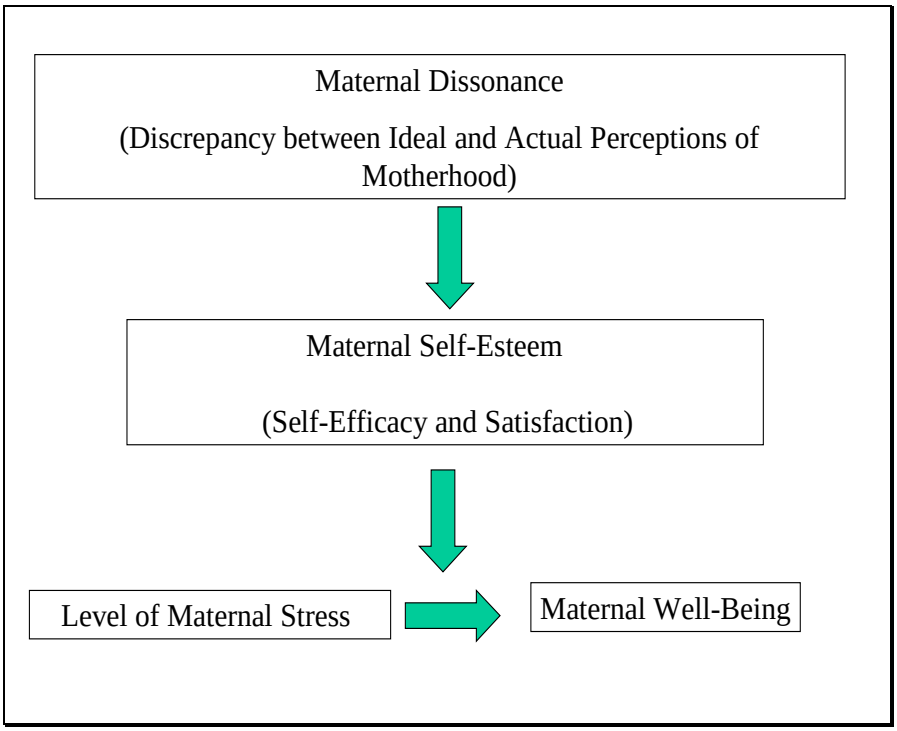

Figure 1. Proposed Model for Study 1.

Method – Study 1

Participants

One hundred and twenty-three Australian mothers participated in Study 1. Their ages ranged from fifteen to above fifty years of age. All participants were actively mothering children aged ten years or less, with children's ages ranging between eight months and ten years. Most mothers were mothering children in their pre-school years. Of these participants, data revealed that 21% were born overseas, and only five stated that were of Aboriginal or Torres Strait Islander descent. Postcodes of participants revealed a cross-section of areas from whence participants were derived. These postcodes ranged from areas such as Corio and Whittington in Victoria, Australia, considered to be low socio-economic areas, to Parramatta in New South Wales and St Kilda in Victoria, considered to be middle income areas. It is also interesting that postcodes revealed participants to be from both urban and regional/rural areas of Australia, as well as from along the eastern seaboard states of Australia. No participant in Study 1 was involved in the second study (Study 2) of this research.

Materials

Plain Language Statement - Study 1 (see Appendix A)

Maternal Information Questionnaire (see Appendix B)

Parenting Sense of Competency Scale (PSOC - see Questionnaire 1 in Appendix B)

Ideas of Parents Scale (IPS - see Questionnaire 2 in Appendix B)

General Well-Being Schedule (GWBS - see Questionnaire 3 in Appendix B)

Parenting Stress Index-Short Form (PSI-SF - see Questionnaire 4 in Appendix B)

Stamp self-addressed envelope for return of questionnaires through mail.

Instruments

Maternal Information Questionnaire (see Appendix B). This questionnaire consisted of eight questions and requested general information from participants. Information gathered included participants' age range, number of children, children's ages, postcode, educational level and marital status, birthplace and cultural heritage.

Ideas of Parents Scale (see Appendix B). This instrument was designed to measure maternal dissonance. Ideally, Bornstein et al.'s (1996) Parental Style Questionnaire would have been used, but this proved unobtainable, so the Ideas of Parents Scale was modified for this purpose. Originally, the Ideas of Parents Questionnaire was a 30-item instrument, designed to detect irrational thoughts in parents. It was developed by Dr Marie Joyce, and has to date only been used in one unpublished research study. Permission was gained from the original author for modification and use in this research, but no information about its psychometric properties related to its original use was available.

The Ideas of Parents Scale (IPS) was initially expanded from the original 30 items into a 44-item scale incorporating two 22-item subscales: the Idealistic scale (ideal beliefs about mothering) and the Realistic scale (actual day to day beliefs about mothering). Items were added such that in the final version, each of the 22 items of the Idealistic scale possessed a corresponding item in the Realistic scale. Each item asked the participant to rate her response on a four-point likert scale, ranging from strongly agree and agree to disagree and strongly disagree. Specific items were reverse scored (Items 13 & 15) on the Idealistic scale. To assess the reliability of the instrument, all items for each individual sub-scale were originally entered for analysis. Each pair of items (one from the Idealistic sub-scale and its corresponding

item from the Realistic sub-scale) was examined in terms of each item's impact on the reliability alpha of its sub-scale. Items were removed as pairs to produce the highest level of reliability for the two sub-scales leaving twelve pairs of items in each sub-scale The reliability alphas obtained were adequate at .70 for the Idealistic scale and .80 for the Realistic scale.

A maternal dissonance score was also obtained from the IPS by subtracting the total score of the items on the Realistic scale from a total score calculated from the Idealistic scale. This final score was achieved through using only those responses of Strongly Agree or Agree on the Idealistic scale (responses of Disagree or Strongly Disagree were coded as a zero, as they did not indicate idealism). From this Idealistic total, the Realistic total was subtracted to yield a score for level of maternal dissonance. Any maternal dissonance scores which were negative were then recoded to zero, as it was considered that a person could either have maternal dissonance or not (negative maternal dissonance was not a meaningful concept). An example of the calculation of final obtained scores for the Idealistic scale and calculation of maternal dissonance can be viewed in Appendix C. Overall, higher maternal dissonance scores indicated greater maternal dissonance; lower scores indicated lower maternal dissonance. The reliability score yielded for this scale from the current data was .68.

Parenting Sense of Competency Scale (Mash & Johnston, 1989. See Appendix B). The Parenting Sense of Competency Scale (PSOC) was employed in this study to measure the maternal self-esteem variable. Originally, the PSOC was a 17-item, likert type, self-report measure, developed by Gibaud – Wallston and Wandersman (1978; cited in Johnston & Mash, 1989). The PSOC was designed to measure maternal confidence in skills as a mother, and value placed on being a good mother (Touliatos, Perlmutter & Straus, 2001) through two subscales, the value/comforting scale (9

items) and the skills/knowledge scale (8 items). Each item asked the mother to indicate her level of agreement or disagreement on a six point scale (Strongly Agree to Strongly Disagree), with reverse scoring for specific items. Subsequent research with this instrument suggested that the 17th item did not load onto either subscale; hence in more recent times it has been modified to a 16-item instrument with two subscales, the Efficacy scale and the Satisfaction scale (Johnston & Mash, 1989). It is this latter version of the PSOC, which was employed in the present study.

In previous research, the PSOC has been used to measure maternal self-esteem in samples of mothers with both well and ill infants, as well as a screening measure in hospitals, clinics and community settings (Touliatos et al., 2001). Although primarily used with mothers of older children, it was originally designed to be applicable for use with parents of children at any age (Coleman & Karraker, 2000). These characteristics made it particularly useful for this study.

Psychometrically, in the original study by Gibaud-Wallston and Wandersman (1978 cited in Bor, Sanders & Markie-Dadds, 2002), an overall Cronbach's alpha of .79 was yielded. Subscale alphas of .70 for the skills/knowledge subscale, and .82 for the value/comforting subscale, with test-retest correlations ranging from .46 to .82, were also reported. More recent examination of alphas on the modified version has generally yielded similar findings to those in the original version (Touliatos et al., 2001). In a study by Cann et al. (2003), the reliability of their modified (16-item) version PSOC yielded alpha coefficients of .75 and .76 for the Satisfaction and Efficacy scales respectively.

In regard to the present study, items were reverse scored as required, before yielding the total maternal self-esteem scores. Higher scores reflected higher levels of perceived maternal self-esteem. It would seem that the Cronbach's alpha yielded for

the subscales of this research are reflective of previous studies, with alphas of .87 and .86 for the Satisfaction and Efficacy subscales respectively. An overall Cronbach's alpha of .91 was yielded for overall maternal self-esteem, indicating the appropriateness of using the total scale score in the present analyses.

Parenting Stress Index-Short Form (Abdin, 1995. See Appendix B). This instrument was employed to assess self-perceived stress in mothers. Consisting of 36 items, it is a direct derivative of the full length Parenting Stress Index (Abdin, 1990). In this study, only the total stress score was employed, although it should be noted that the PSI-SF does possess three subscales (parent distress, parent-child dysfunction and difficult child).

The usefulness of the PSI-SF has been extensively observed in both research and clinical domains. In a study by Reitman, Currier and Stickle (2002), when researching the applicability of the instrument for low socio-economic status, Afro-American mothers, it was found that the PSI-SF was useful as a screening tool. In that particular instance, families in need of intensive service delivery could be identified using the PSI-SF. Similarly, in another study using the Head Start population, Razzino, Neil, Lewin and Joseph (2004) used the PSI-SF as one screening tool in a battery to predict the need for mental health services for parents. Although only two examples of studies, it can be seen that the applicability of the PSI-SF is not limited to the research domain, but applicable in clinical and community settings also.

The PSI-SF is intended for use with parents of children aged ten years and younger. It is short to administer (less than ten minutes), and requires only a fifth grade reading level (Abdin, 1990). Consisting of 36 items, respondents are asked to indicate their responses along a 5-point scale ranging from Strongly Agree to Strongly Disagree for a majority of items. Items 22, 32 and 33 ask respondents to choose

between five alternatives, rather than the Strongly Agree to Strongly Disagree of the likert scale. Some items of the PSI-SF are reverse scored prior to totals being derived. Higher total stress scores indicate higher levels of parenting stress, with scores above the 85th percentile indicative of high levels of stress (Baker et al., 2003).

In terms of the psychometric properties of the PSI-SF, Roggman, Noe, Hart, and Forthun (1994) found the internal consistency of the PSI-SF to be comparable to that of the PSI-LF (long form), and indeed Abdin (1995) reported that the correlation between the total stress score of the PSI-SF and the PSI-LF was .94. Similar correlations were found for each of the three subscales of the PSI-SF, with their PSI-LF counterparts. Overall, the reliability of the PSI-SF has been well documented with reliability alphas consistently ranging from .77 and .88 (Cain, Washington, Wilson & Combs-Orme, 2001; Waisbren, Rones, Read, Marsden & Levy, 2004). The Cronbach's alpha yielded for the total stress score of the PSI-SF for the present study was high at .92.

General Well-being Schedule (Dupery, 1977. See Appendix B). This instrument was employed to assess the psychological well-being of participants. Also known as the Psychological General Well-being Index or Schedule, it is an 18-item self-report measure, which has items included for six different domains (anxiety, depressed mood, positive well-being, self-control, general health and vitality (Salek, 2001). This questionnaire was originally designed to assess the individual's representations of subjective well-being and distress, and is applicable for persons aged fourteen to ninety years (Salek, 2001). The literature presents varying lengths of this questionnaire (25-items; 12 items), but, as stated previously, the 18-item GWBS was to be utilized in this study

The General Well-being Schedule is considered to have very good validity (with correlations of up to 0.90 with interviewers' ratings of anxiety and depression, as well as other anxiety and depression scales). Its test-retest reliability in the original study (Fazio, 1977; cited in Salek, 2001) was noted to range between 0.50 and 0.86. In a study by Leonardson et al. (2003) looking at reliability and validity of the GWBS for American Indians diagnosed with Type 2 diabetes, a Cronbach's alpha of .89 was yielded. An alpha of .85 was yielded for the GWBS in a study by Brown et al. (2001). More recently a study by Taylor et al. (2003) describes the GWBS as being "a reliable and valid measure of psychological well-being". Like the previous instruments described above, the GWBS has been employed as an assessment tool in various studies spanning the clinical, community and research domains (Brown et al., 2001; Hunt & McKenna, 1992; Monk, 1981; Ulin, 1981; Viet & Ware, 1983).

In the present study the GWBS was used to assess the overall well-being of the individual, therefore only total well-being scores were used. Prior to deriving the overall well-being score, as with the other scales of this study, items were re-coded as specified. Higher scores on the GWBS are indicative of more positive well-being, with lower scores indicative of greater psychological distress. According to McDowell and Newell (1987) scores of 60 or below are considered to be in the severe distress range, 61-72 in the moderate distress range and 73 to 110 in the positive well-being range. In the present study, the reliability score yielded for this instrument using Cronbach's alpha was .87.

Procedure

Ethics approval. Ethics approval for this study was obtained from the Human Research Ethics Committee at the University of Ballarat (8th August, 2005: Project Number: A05-087). This application considered possible distress, however slight,

encountered as a result of completing the questionnaires, and as such participants were warned of this possibility and provided with the phone numbers of both the Supervisor of this study as well as that of Lifeline. Participant involvement was voluntary and participants were reminded that they were under no obligation to complete the questionnaires if at any time they were concerned or distressed by the procedures. It was also possible for a participant who, on reflection, felt that she did not wish to participate, to withdraw at any time by contacting the Supervisor of the research. This information was imparted through the Plain Language Statement - Study 1.

Recruitment. In Study 1, participants were recruited primarily from in and around Geelong, Victoria from advertisements placed in local maternal and child health centres, community centres, and in various primary school newsletters. In addition, the study was promoted at playgroups and through word of mouth. Those recruited from outside of the Geelong area were gained through word of mouth. In those venues in which a flyer was placed, the manager was approached and a request was made to place a flyer on the wall of the premises or in the newsletter. Only two primary schools were approached and for a nominal fee the flyer was printed as an advertisement in their school newsletter. On these advertisements were contact details of the researcher should they wish to participate (see Appendix D). As a result of the advertisements, the researcher was also invited to talk to several playgroups and mothers' groups to recruit participants. In this instance, the researcher attended only one session and briefly described the nature of the research, answered any questions from potential participants and allowed them to decide whether they wanted to complete the battery of questionnaires.

Procedure for completing questionnaires. Upon acceptance, participants were provided with a package consisting of the Plain Language Statement (Study 1) and the battery of questionnaires described above (see Appendices A & B). Also, a reply paid envelope was included for those participants wishing to mail the completed forms back to the researcher. The participants had the option of completing the questionnaires on the spot and returning them to the researcher then and there, or completing and returning them anonymously at a later date using the reply paid envelope provided. Most participants in Study 1 chose to complete the questionnaires on the spot.

Sampling. All mothers regardless of age, number of children, employment status, educational attainment, level of well-being, stress and self-esteem were invited to participate. Overall, of the 191 questionnaires distributed, 136 were returned (71%). However, because of missing data where participants did not complete multiple items on the questionnaires, only 123 sets of data were able to be used in the analyses.

Design

A correlational design was used in Study 1 to examine the interrelationships between the different types of maternal cognitions and their influence on the maternal stress-maternal well-being relationship. The interrelationships were analysed as per the model outlined in Figure 1.

Data Analysis

To test the proposed model for Study 1 (see Figure 1) a series of hierarchical multiple regression analyses were conducted. The various hypotheses were tested as follows:

Hypothesis 1: To test Hypothesis 1, a correlational procedure was employed, whereby maternal dissonance and maternal self-esteem were examined for the existence of a relationship.

Hypothesis 2: To test Hypothesis 2, three distinct steps were undertaken to examine whether maternal self-esteem would moderate the relationship between stress and well-being (Baron & Kenny, 1986). Firstly, maternal stress was entered as a predictor of maternal well-being. Secondly, maternal self-esteem was regressed on maternal well-being. Thirdly and finally, the interaction effect of maternal stress by maternal self-esteem (stress X self-esteem) was entered as a predictor of the maternal well-being variable (www.victoria.ac.nz/psyc/staff/paul-jose/files/helpcentre/help9a_reference.php).

Results – Study 1

Data were analysed using SPSS 14.0. As recommended by Coakes (2005) the data were screened for missing data and normality. During the initial entry, there were thirteen participants who had not completed whole questionnaires; therefore these thirteen participants' data were deleted from the study. Missing data were scattered throughout the measures and were replaced using the mean substitution method (Brace, Kemp & Snelgar, 2003; Tabachnick & Fidell, 2001). In total, across the data 12 items were replaced using this method.

Examination of the distributions of the Parenting Stress Index – Short Form (M = 81.13, SD = 19.16), Parenting Sense of Competency Scale (M = 62.57, SD = 13.66), General Well-Being Schedule (M = 66.01, SD = 16.90) and the Ideas of Parents Scale – Dissonance Scale (M = *2.86*, SD = 2.83) revealed that they were reasonably normal. Given the moderate sample size and the absence of any extreme cases, no transformation of data occurred (Brace et al., 2003; Coakes, 2005).
Prior to the major analyses being undertaken, exploration of the data for the demographic variables was completed. Descriptive statistics for the sample of mothers in Study 1 can be seen in Table 1 below.

From Table 1, it can be seen that 76% were married, 11% were single parents and 12% separated or divorced (one participant did not respond to this question). The educational level of the participants ranged from below Year 12 level to post graduate studies, with most (mode) participants possessing an undergraduate qualification (30%). Also, most were found to be mothering between two and three children (62%).

Table 1
Number of participants in each category in Study 1 (N=123).

Category	Age[a]	EdL[b]	MS[c]	Child[d]
1	15	25	99	32
2	60	30	13	80
3	50	39	14	16
4	3	30	NA	7

Note. The designation of each category was related to the variables as follows:
a Age=Age of Mother (1= 15-25 years, 2= 26-35 years, 3= 36-49 years, 4= 50+ years)
b EdL=Education Level of Mother (1= below Year 12, 2= Year 12, 3= undergraduate level, 4= postgraduate level)
c MS=Marital Status of Mother (1= married, 2=single, 3=divorced)
d Child=Number of Children (1= 1 child, 2=2-3 children, 3= 3-4 children, 4= 5+ children)

Descriptive statistics and inter-correlations

Table 2 presents descriptive statistics on maternal well-being, maternal dissonance, maternal self-esteem and maternal stress. Approximately 34.4% of the sample had compromised well-being or severe distress (scores <60 on the GWBS), and an additional 20.3% exhibited moderate distress (scores between 61-72 on the GWBS). Therefore, 54.6% of the sample mothers (*N*=123) had less than optimal well-being. The mean score on the GWBS was 66.01, showing a moderately high level of distress in mothers.

Table 2 presents the descriptive statistics for the various independent variables. In terms of maternal stress, it can be seen that the mean stress score yielded in the current sample was 81.37. This score according to the PSI-SF is reasonably high, given that the clinical cut-off noted by Abdin (1990) is >85. The range of scores on this instrument was wide (43.00-115.00), but 39% of the sample of mothers did have scores of >85, placing them in the clinical range for maternal stress. It can also

be seen from Table 2 that the mean score yielded for the maternal self-esteem variable (as indicated by PSOC scores) was 62.57, with a range of scores from 23-91.

The final variable presented in Table 2 is maternal dissonance. Given that this instrument was developed for the present study, no previous scores regarding problematic levels of maternal dissonance were available. From Table 2, it can be seen that the mean level of maternal dissonance of the sample was 2.86.

Table 2
Descriptives of predictors of maternal psychological well-being and dimensions of parenting cognitions (N=123).

Independent and Dependent Measures	Mean	Standard Deviation	Range
Psychological Well-Being	66.01	16.90	20-99
Maternal Stress	81.13	19.16	44-115
Maternal Self-Esteem	62.57	13.66	23-101
Maternal Dissonance	2.86	2.83	0-8

Preliminary analyses using Jonckheere-Terpstra tests suggested that psychological well-being was significantly, but weakly, associated with the age of the mother up to 49, JT = 2.05, N = 123, p = .04 (there were only 3 participants in the fourth age category which was not used in the analysis). This suggests that the older the person is, the better her psychological well-being. Similarly, age was found to related to maternal self-esteem, JT = 2.13, N = 123, p = .03, suggesting that the older the mother, the higher her maternal self-esteem.

Table 3
Correlations between predictor variables and maternal well-being (N=123)

	Stress	MSE	MD	WB
Stress		-.60**	.06	-.32**
MSE			.14	.27**
MD				.07

* correlation is significant at .05 level
** correlation is significant at the .01 level
Stress=maternal stress
MSE=maternal self-esteem
MD=maternal dissonance
WB=maternal well-being

Another interesting finding was that involving marital status and self-esteem. A Kruskal-Wallis test of the self-esteem experienced by the three categories of marital status (Married, Single and Divorced) strongly suggested that there were differences between them, $X^2 = 5.64$, $df = 2$, $p = .06$. Inspection of the mean ranks confirmed that mothers in the divorced category (84.64) enjoyed higher self-esteem than either married mothers (60.41) or single mothers (59.32). There was little suggestion that well being varied with marital status. There was also a weak association between higher educational levels and higher levels of maternal self-esteem as revealed by a Jonckheere-Terpstra test, JT = 2.12, $N = 126$, $p = .03$. This arose from the two graduate groups enjoying the highest maternal self-esteem compared to those finishing school before Year 12 who had the lowest level of maternal self-esteem.

Parametric correlation analyses of the major psychological variables of interest revealed some strong relations (see Table 3). A significant negative correlation was found between maternal stress and maternal psychological well-being indicating that higher levels of maternal stress were related to lower levels of maternal well-being, while a positive correlation was found between maternal self-esteem and

maternal psychological well-being . This correlation suggested that higher levels of maternal self-esteem were related to higher levels of maternal well-being. Finally, the strongest correlation was found between maternal stress and maternal self-esteem suggesting the higher a mother's level of stress related to her maternal role, the lower her self-perception of self-esteem.

One correlation that yielded an unexpected outcome was that between the Idealistic and Realistic scales of the IPS. It can be seen from Table 4 that a significant (at the .01 level) association was found between these scales, suggesting that a mother with high ideals also tended to have high (positive) beliefs about her effectiveness in her day-to-day functioning as a mother. In looking at the IPS scales and their correlations with maternal self-esteem and its components of maternal self-efficacy and maternal satisfaction, another unexpected positive correlation was found for the relationship between the Idealistic scale of the IPS and maternal self-efficacy (one single component of maternal self-esteem). This suggests that the higher the ideal a mother holds, the greater her self-efficacy (see Table 4). In contrast to these unexpected findings, the Idealistic scale of the IPS was highly correlated with the Dissonance scale of the IPS as expected . This finding suggested a mother with high ideals about her mothering role, also possessed high levels of maternal dissonance. It also may, in part, reflect the manner in which the Dissonance score was calculated. Finally, the Dissonance Scale of the IPS was also unexpectedly found to be significantly correlated with maternal self-efficacy, indicating high levels of maternal self-efficacy were related to higher levels of dissonance.

Table 4
Correlations between IPS Scales and maternal self-efficacy (a component of self-esteem) (N=123).

	Idealistic	Self-Efficacy
Realistic	.48**	-.04
Dissonance	.54**	.31**
Self-Efficacy	.32**	

** Correlation significant at the .01 level.

Multiple regression analyses

In the next set of analyses, hierarchical regression analyses were conducted for each of the two hypotheses of Study 1.

Hypothesis 1

> "The degree of maternal dissonance will be inversely related to the degree of perceived maternal self-esteem (that is, low maternal dissonance, high maternal self-esteem; high maternal dissonance, low maternal self-esteem)".

Table 5
Correlation yielded between maternal dissonance and maternal self-esteem (N = 123).

	Maternal Self-Esteem
Maternal Dissonance	.14

In terms of this hypothesis, correlational analysis was conducted for the maternal self-esteem and maternal dissonance variables. The outcome of this analysis

can be seen in Table 5 above and shows that the level of maternal dissonance was not related to maternal self-esteem in this sample.

Hypothesis 2

"Maternal self-esteem would moderate the relationship between maternal stress and maternal well-being".

In the second analysis, a regression analysis was performed to examine the above hypothesis. In the first instance, maternal well-being was regressed on maternal stress. The results of this analysis can be viewed in Table 6.

Table 6
Summary of co-efficients table for hierarchical regression analysis of the effect of maternal stress on maternal well-being (N=123).

	B	Std. Error	Beta
(Constant)	89.69	6.53	
Maternal Stress.	-.29	.08	-.32

$R^2 = .10$

It can be seen that this model accounted for 10% of the variance in maternal well-being, with maternal stress being a significant negative predictor of maternal psychological well-being, $F(1,122) = 13.89$, $p < .01$.

Given the above finding supporting a negative predictive relationship between maternal stress and maternal well-being, exploration of maternal self-esteem as a moderator of this relationship was executed. In the first step maternal stress and maternal self-esteem were entered separately into the model, and then in a second step, the interaction variable of Stress x Self-Esteem was entered. Centred scores were used throughout to avoid the serious problems of multicollinearity that can arise in

this form of analysis (Jaccard & Turrisi, 2003). The results of this analysis can be seen in Table 7, below.

Table 7
Summary of co-efficients table for hierarchical regression analysis of maternal self-esteem as a moderator of the maternal stress-maternal well-being relationship (N=123).

	B	Std. Error	Beta
Step 1			
(Constant)	68.08	14.62	
Maternal Stress.	-.19	.10	-.22*
Maternal Self-Esteem	.21	.13	.17
Step 2			
(Constant)	36.94	34.37	
Maternal Stress	- .19	.10	-.21*
Maternal Self-Esteem	.24	.14	.19^{+}
Stress x Self-Esteem	-.01	.01	-.10

R^2 = .11 for Step 1, R^2 = .008 for step 2.
*p = .05; + p < .1

It can be seen from Table 7 that the interaction variable of Stress x Self-Esteem entered in Step 2 was not significant. This finding suggests that the interaction term did not significantly contribute to the variance, though the model as a whole was significant, $F(3,117) = 5.33$, $p < .01$. Hence, maternal self-esteem was not a moderator of the maternal stress-maternal well-being relationship. On the other hand, both maternal stress and maternal self-esteem, were found to weakly, yet independently predict maternal well-being.

Other findings

Although not specifically related to the hypotheses proposed in this study, various other hierarchical regression analyses were performed to explore the current dataset. These will be presented forthwith.

Given that the results for Hypothesis 1 showed that maternal dissonance was not a predictor of maternal self-esteem, a regression analysis was undertaken to explore whether maternal dissonance was a predictor of the satisfaction subscale of the PSOC (as suggested by the findings of Bornstein et al's. study (2003). The findings of this regression analysis can be viewed in Table 8.

Again, it can be seen that the outcome of this regression analysis yielded non-significant findings, with maternal dissonance only predicting 1% of the variance. This suggests for the current data that level of maternal dissonance was not a direct predictor of the level of maternal satisfaction, $F(1,123) = .01$, *ns*.

Table 8
Summary of co-efficients table for regression analysis of the effect of maternal dissonance on maternal satisfaction. (N=123)

	B	Std. Error	Beta
(Constant)	33.96	1.16	
Maternal Dissonance.	-.03	.29	-.01

$R^2 = .01$

Another additional analysis was undertaken to explore whether maternal dissonance itself moderated the maternal stress-maternal well-being relationship. Once more centred scores were employed. Entered in Step 2, the interaction variable of Stress x Dissonance again revealed it had limited effect on maternal well-being, indicating that maternal dissonance did not moderate the maternal stress – maternal

well-being relationship (see Table 9). Again it can be noted that overall the model predicted a significant proportion of the variance of maternal well-being, with maternal stress the main predictor.

Table 9
Summary of co-efficients table for hierarchical regression analysis of maternal dissonance as a moderator to the maternal stress-maternal well-being relationship (N= 123).

	B	Std. Error	Beta
Step 1			
(Constant)	88.61	6.58	
Maternal Stress.	-.30	.07	-.33**
Maternal Dissonance	.52	.52	.09
Step 2			
(Constant)	78.99	9.19	
Maternal Stress.	-.30	.07	-.33**
Maternal Dissonance	.74	.54	.12
Stress x Dissonance	-.04	.03	-.13

R^2 = .11 for Step 1, R^2 = .13 for Step 2.
**$p < .01$

A further regression analysis examined the Efficacy subscale of the PSOC for its moderational influence on the maternal stress – maternal well-being relationship. This was undertaken as there was previous research to support this analysis (Kwok & Wong, 2000; Wong, Lam & Kwok, 2003). However, maternal self-efficacy was not found to be a moderator of the maternal stress-maternal well-being relationship, $F(3,121)=5.66$, $p>.05$. This finding can be viewed in Table 10 below.

So, the proposed model was not supported by the current data, except for the relationship between maternal stress and maternal well-being, where the level of maternal stress was found to inversely predict the level of maternal well-being.

Table 10
Summary of co-efficients table for hierarchical regression analysis of maternal self-efficacy as a moderator of the maternal stress-maternal well-being relationship (N=123).

	B	Std. Error	Beta
Step 1			
(Constant)	66.02	1.46	
Maternal Stress.	-.27	.09	-.30**
Maternal Self-Efficacy	.12	.24	.05
Step 2			
(Constant)	65.01	1.58	
Maternal Stress	-.27	.08	-.31**
Maternal Self-Efficacy	.22	.25	.09
Stress x Dissonance	-.02	.01	-.14

R^2 = .11 for Step 1, R^2 = .12 for Step 2
**p < .01

Finally, given that some evidence exists suggesting that maternal self-esteem may play a mediational role in the relationship between maternal stress and maternal well-being, the data were explored from this perspective. Correlational data (See Table 3) suggest the existence of relationships between each of the three variables of interest (maternal stress, maternal self-esteem and maternal well-being). To test for the mediational effect, regression analyses were undertaken for the relationship between maternal stress and maternal self-esteem, and maternal stress and maternal well-being.

Regressing maternal self-esteem on maternal stress (see Tables 6 & 11), a Sobel statistic of 1.58 was obtained suggesting a marginal trend toward partial mediation, $p = .12$. Thus, while the effect of maternal stress is noticeably reduced when maternal self-esteem is added to the equation (see Table 12), the fact that maternal self-esteem is not a strong independent predictor of maternal stress reduces its capacity to mediate the link between maternal stress and maternal well-being. In summary, it appears that maternal stress and maternal self-esteem are closely associated and that both predict a noticeable amount of the variance in maternal well-being. Of the two predictors, maternal stress is the only one that approaches significance when both are entered in the single analysis.

Table 11
Summary of co-efficients table for regression analysis of maternal self-esteem on maternal stress. (N = 123).

	B	Std. Error	Beta
(Constant)	103.16	4.44	
Maternal Stress.	-.43	.05	-.58

$R^2 = .34$; $p < .001$

So, overall, the findings of Study 1 show that there is no strong support for either a moderating or mediating role for maternal self-esteem in the relationship between maternal stress and maternal well-being, nor does maternal dissonance predict maternal self-esteem.

Table 12
Summary of change statistics for hierarchical regression analysis of maternal stress and maternal self-esteem as predictors of maternal well-being (N=123).

	B	Std. Error	Beta
Step 1			
(Constant)	65.69	1.50	
Maternal Stress.	-.28	.08	-.31**
Step 2			
(Constant)	65.68	1.49	
Maternal Stress	-.19	.10	-.21*
Maternal Self-Esteem	.21	.13	.17

R^2 = .10 for Step 1, R^2 = .12 for Step 2 * p = .05
** p < .01

Method – Study 2

Participants

In Study 2, a total of forty mothers participated. All were currently mothering at least one child who was less than ten years of age and lived in the eastern suburbs of Melbourne, considered to be middle class income areas. Participants were obtained from an advertisement in Melbourne's Child, a website called 'Being a Mother' (www.beingamother.com), referrals from community maternal and child health nurses and word of mouth from previous group participants.

At initial contact, each potential participant was screened for inclusion. The program was aimed at mothers with high idealistic maternal beliefs, therefore all potential participants were asked to complete the Ideas of Parents Scale (IPS). Only those mothers whose total score on the Idealistic scale of the IPS was above 55 (the median score on the Idealistic scale for those who made contact) were included. Of the forty-two eligible participants, twenty-one were allocated to the intervention group and twenty-one to the alternative intervention group. No participant from Study 1 (the simultaneous study) was involved in Study 2.

Intervention Group. Twenty participants were randomly allocated to the intervention group. Their ages ranged across all four age categories on the Maternal Information Questionnaire. The ages of children of these participants ranged from eleven months to ten years of age. All participants had an IPS score of 55 or above on the Idealistic scale of the IPS. No participants reported themselves to be of Aboriginal or Torres Strait Islander descent, and only one had been born overseas.

Alternative Intervention Group. Similar to the intervention group, the ages of the twenty participants allocated to the alternative intervention group ranged across all four age categories on the Maternal Information Questionnaire. The ages of their

children ranged between eighteen months up to ten years of age. All participants had an IPS score of 55 or above on the Idealistic scale of the IPS and were similar to the intervention group in terms of location and socio-economic status. No participants of this group reported themselves to be of Aboriginal or Torres Strait Islander descent or born overseas.

Group Facilitator. A professional trainer conducted the facilitation of both the intervention group and alternative intervention group. The same trainer conducted both groups. She was female, forty years old, a registered generalist Psychologist in the state of Victoria, Australia and a full member of the Australian Psychological Society. She possessed an established private practice in Hawthorn, Victoria, Australia, and therapeutically, worked from an REBT perspective. She had had considerable experience in working with parents, particularly parents facing difficulty in role acquisition in the post-natal period. She also had had experience in working with mothers with post-natal depression. The trainer developed the intervention being evaluated in this study.

Materials

Plain Language Statement - Study 2 (see Appendix E)

Maternal Information Questionnaire (see Appendix B)

Parenting Sense of Competency Scale (see Questionnaire 1 in Appendix B)

Ideas of Parents Scale (see Questionnaire 2 in Appendix B)

General Well-being Schedule (see Questionnaire 3 in Appendix B)

Parenting Stress Index - Short Form (see Questionnaire 4 in Appendix B)

Trainer's Manual – Alternative Intervention Group (see Appendix F)

Trainer's Manual – Intervention Group (see Appendix G).

The instruments used in Study 2 will be described below.

Instruments

Maternal Information Questionnaire (see Appendix B). This questionnaire was identical to that used in Study 1. It requested general information from participants, including participant's age range, number of children, children's ages, postcode, educational level, participant's birthplace and family structure. In Study 2, this questionnaire aided in matching of participant responses across pre-test, post-test and follow-up.

Ideas of Parents Scale (see Appendix B). This instrument was employed to measure maternal dissonance in participants. As stated in Study 1, Bornstein et al.'s (1996) Parental Style Questionnaire would have been used, but proved unobtainable, so, the IPS was modified and used with the permission of the original author. From a 30-item, single scaled instrument, designed to detect irrational thoughts in parents, the IPS was lengthened to a 44-item, two subscaled instrument, these subscales being-the Idealistic scale (ideal beliefs about mothering), and the Realistic scale (actual day to day beliefs about mothering). Each scale consisted of 22 items. Level of dissonance was calculated in the exact same manner as Study 1; with higher dissonance scores indicating greater dissonance (see Appendix C). No psychometric properties were available for the original scale; however, Study 1 yielded information about the most reliable set of matching questions on the Idealistic and Realistic scales, and the same set of questions was therefore selected for analysis for Study 2. Cronbach alphas yielded for Study 2 were .60 and .59 for pre-test and post-test Idealistic scales respectively, and .73 and .58 for the pre-test and post-test Realistic scales respectively. Alphas for follow-up data were not calculated as attrition of participants occurred, making the calculation difficult. Cronbach alphas for the derived dissonance scale at pre-test and post-test were found to be .68 and .52 respectively.

Again the reliability alphas at follow-up were not calculated because of participant attrition.

Parenting Sense of Competency Scale (Mash & Johnston, 1989. See Appendix B). In Study 2, the PSOC was employed to measure the self-perceived maternal self-esteem variable. As stated previously, this instrument was developed by Gibaud – Wallston and Wandersman (1978; cited in Johnston & Mash, 1989), and was designed to measure maternal confidence in skills as a mother, and value placed on being a good mother (Touliatos et al., 2001). Originally a 17-item, likert type questionnaire, later versions have reduced the number of items to sixteen, with two scales, the Satisfaction and the Efficacy scales. The latter version of this instrument was utilized in the present study.

Having previously discussed research findings regarding the PSOC's reliability (see Study 1), it is nevertheless important to acknowledge its use as a clinical tool (Touliato et al., 2001). Large scale parenting programs such as Triple P (Bor et al., 2002) have found it a reliable measure of competency in parenting group programs, with reliability scores similar to the original reliability of .79 reported by Mash and Johnston (1989). Also, longitudinal study by Knauth (2000) yielded a reliability of .86 when studying mothers and fathers beliefs and how they change during periods of parenthood. The Cronbach's alphas yielded for the PSOC in Study 2 were .76, .75 and .77 for pre-test, post-test and follow-up respectively.

Parenting Stress Index-Short Form (Abdin, 1995. See Appendix B). This instrument was employed in Study 2 to assess the level of perceived stress in mothers. Consisting of 36 items (as stated in Study 1), it is a direct derivative of the full-length PSI and possesses three subscales (parent distress, parent-child dysfunction and difficult child). As in Study 1, only the total stress score was used in this study.

Having well-established psychometric properties, the PSI-SF is considered an effective clinical tool to identify stress in parents. It has previously reported reliability scores ranging from .88 to .90 (Cain, Combs-Orme & Wilson, 2004; Reitman et al., 2002) and its use in parenting programs has yielded sufficiently high reliability across pre-test, post-test and follow-up ranging from .78 to .93 (Wolfe & Hirsch, 2003). Reliability scores in the present study ranged from .80 at pre-test to .85 and .82 at the post-test and follow-up stages respectively.

General Well-Being Schedule (Dupry, 1978. See Appendix B). In Study 2, this instrument was employed to assess the psychological well-being of participants. The GWBS is also known as the Psychological General Well-being Index or Schedule, and is an 18-item, self-report measure, which has items included for six different domains (anxiety, depressed mood, positive well-being, self-control, general health and vitality; Salek, 2001). Each subscale has three to five items that are scored on a scale from 0 (the most negative option) to 5 (the most positive option). The purpose of this instrument is to assess self-representations of subjective well-being and distress, and is applicable for persons aged fourteen to ninety years (Salek, 2001). Previous reliability scores have ranged from .80 to .85 (Brown et al., 2001; Leonardson et al., 2003). Reliability alphas for the present study were .85 for pre-test and .72 for follow-up. This instrument was not administered at the post-test phase as it asked about functioning over the past month and one month had not elapsed between the pre-test and post-test phases of testing.

Procedure

Ethics Approval. In the same application as Study 1, ethics approval for this study was obtained from the Human Research Ethics Committee at the University of Ballarat (8th August, 2005, Project Number: A05-087). In relation to Study 2, this

application considered possible distress encountered as a result of reflecting on experiences of mothering at an individual level, as well as at a group level. Participants were warned of this possibility and provided with both the Supervisor of this study's phone number for contact, as well as that of Lifeline. Confidentiality of information within the group was also discussed by the trainer at the beginning of the group session. Participant involvement was also voluntary and the participants were reminded that, they were under no obligation to complete the questionnaires, if they did not wish to. As in Study 1, the participant was able to withdraw at any time by contacting the Supervisor of the research. This information was provided in the Plain Language Statement- Study 2.

Recruitment. Participants for Study 2 were recruited through advertisements placed in a free parenting magazine called Melbourne's Child (a fee for service magazine), a website called www.beingamother.com (developed by the trainer), and via referrals from maternal and child health nurses. At enquiry or referral all potential participants were sent the Ideas of Parents Scale to complete and return. Upon return, the score on the Idealistic scale of the IPS was calculated and only those participants who registered a score of 55 or above were sent an invitation to participate in the study (see Appendix H). Along with the invitation, the Plain Language Statement (Study 2) (see Appendix E) and informed consent form were also mailed (see Appendix I). Those referrals/inquiries that did not fit the criteria of this study were offered individual counselling.

Allocation to groups. Fifty-four inquiries / referrals were deemed eligible for inclusion in this study, but only forty-two informed consent forms were returned. Each participant was randomly allocated to either the intervention group or the alternative intervention group. The procedure for random allocation was based on the

return of the informed consent form: participants were allocated alternately to each of the groups depending on when the signed informed consent forms were received. In total twenty-one participants were allocated to each group, at which point participants were contacted with the times and dates of each of the workshops.

It should be noted that as the time for the workshops approached there was some attrition across both groups (for example, children were ill, there were clashes with other events etc.). Therefore, a second workshop was run for each of the groups at a later date for those participants who could not attend their original workshop. Also, new referrals that fitted the criteria for Study 2 were included to "top up" the numbers in each group, as some participants who did not attend the first workshop were unable or declined to attend the second. An inclusion procedure identical to that above was again used.

General procedure. It should be noted that the 'Creating Happier Mothers' intervention was a pre-existing community group program, which had not been evaluated prior to the study. It had previously been trialled in both weekly and one-day workshop formats, with the facilitator opting for the one-day workshop format. Inclusion of participants into the present group was more stringent than previous inclusion guidelines.

Both groups of participants were provided with a battery of tests at the beginning of the group workshop (pre-test), after the group workshop (post-test) and then one month after completing the group workshop (follow-up). The pre-test battery of questionnaires (administered upon arrival at the workshop) included the Maternal Information Questionnaire, the Parenting Sense of Competency Scale (PSOC), the General Well-being Schedule (GWBS) and the Parenting Stress Index-Short Form

(PSI-SF). The Ideas of Parents Scale (IPS) was not administered at this point as it had previously been administered at the initial contact with the participant.

The post-test battery of questionnaires (administered at the end of the workshop) included the Maternal Information Questionnaire (to allow pre-test and post-test responses to be matched), Parenting Sense of Competency Scale (PSOC), the Ideas of Parents Scale (IPS) and the Parenting Stress Index-Short Form (PSI-SF). As was indicated earlier, the General Well-being Schedule (GWBS) was not administered at that time as it asked about functioning over the past month - too long an interval for the pre-test and post-test phases of testing.

At one-month follow-up, participants were sent, by mail, the follow-up battery of questionnaires. This battery included the Maternal Information Questionnaire (again for matching purposes), the Parenting Sense of Competency Scale (PSOC), the Ideas of Parents Scale (IPS), the Parenting Stress Index-Short Form (PSI-SF) and the General Well-being Schedule (GWBS), along with a covering letter with instructions for completing and returning the battery of questionnaires. Participants were requested to return these by mail to the trainer.

The student researcher of this project attended all intervention sessions. She was introduced at the beginning of the session, but did not participate in the sessions beyond that. Her role was the same in both conditions and was essentially limited to distributing and collecting the pre and post test questionnaires and mailing out the follow-up questionnaires which were picked up from the trainer when completed.

Alternative Intervention Group (see Appendix F). This program is described first, as its content was also incorporated into the REBT intervention. The alternative intervention group was conducted in a 1/2 day, 3-hour workshop. The alternative intervention group program consisted of two discrete modules. Each module

possessed its own specific goals and aims. Prior to the beginning of the group session, the pre-test battery of questionnaires (less the IPS) was administered to participants.

Module 1. In the first module the group members were introduced to each other and general icebreaker activities were conducted. After this, participants were then encouraged to share their experiences of motherhood. They were asked to specifically focus on what mothering was like for them, and what they would like to change about their mothering. Discussion occurred concerning the beliefs about what they wanted their mothering to be like and how this presently impacted upon their mothering. Each individual participant's style of coping was explored. Hence, the aim of this module was to facilitate discussion and a sense of support between group members.

Module 2. In the second module of this workshop, a problem-solving approach was introduced to group participants, so mothers could explore ways of changing their mothering to align with how they would like it to be. It involved participants focusing on one perceived problem in their mothering, then brainstorming all alternatives to the problem. Alternatives could then be systematically discounted, until only a few achievable solutions were left. A plan was then made to deal with the problem from the listed alternatives. Most of this module was conducted experientially, whereby participants were asked to cite personal examples of difficulties they encountered in their mothering to be worked through individually. After this, participants were asked to share their examples with the group. After thorough discussion and analysis, the group ended. Participants were then asked to complete the post-test battery of questionnaires before leaving. Four weeks later the participants in the alternative intervention group were sent the follow-up battery of questionnaires to complete and return by mail to the trainer. Only twelve participants

of this group completed the follow-up battery of questionnaires, even though a reminder letter was sent to them with a second battery of follow-up tests enclosed (see Appendix J).

Intervention Group (see Appendix G). For those participants allocated to the Intervention group, they too were exposed to the above two modules. However, training was extended beyond the development of a problem-solving strategy to incorporate a cognitive component using an REBT perspective. This group's program was conducted in a one-day, 8-hour workshop. It should be noted at this point that it was not considered reasonable to conduct the alternative intervention group over an entire day; hence theirs was a half-day program. Therefore, while the two groups were not matched for duration of program time, they were matched for other general issues such as group attendance, support of the group and trainer, and opportunity to discuss their mothering concerns and to learn some problem-solving techniques.

Module 3. Following the first two modules, the third module for the intervention group, had participants discuss their beliefs about the mothering role. Participants were asked to explore how these beliefs/expectations made them feel (emotion). A link was then made between their thoughts, emotions and subsequent behaviours. At this point, the REBT model was introduced to participants, particularly focusing on beliefs and their influence on emotions and behaviour. Participants were encouraged to use personal examples as an understanding of this perspective. The focus of this module was that thoughts and feelings can, and do, affect emotions and behaviours.

Module 4. In the fourth module, the disputation method was introduced to the intervention group. Participants were challenged by the trainer in an attempt to modify their irrational beliefs about mothering. Skills in identifying and modifying

cognitions were emphasized and promoted. Strategies were provided to participants about how to challenge their own beliefs and recognize negative self-talk using the SUE strategy and/or alternative questioning. An emphasis was placed upon the concept of choice. Explanations of this can be viewed in Appendix G.

Module 5. In the fifth and final module of the intervention program, the concepts of A, B and C of REBT method were tied together for participants. This was done through the use of examples from participants. Each participant was encouraged to discuss application of procedures to their own personal situations. They were then asked to reflect upon the relevance of this new way of thinking for broader uses (outside of the mothering role). The learning component of the workshop was then closed.

Finally, a summary of the workshop was given and the participants were asked to complete the battery of post-test questionnaires before leaving. All twenty participants completed the pre-test and post-test battery of questionnaires. After four weeks the participants from the intervention group were sent the follow-up battery of questionnaires to again complete. They were requested to return these by mail to the trainer. Only ten participants returned the follow-up questionnaires. However when sent a reminder, an additional three participants from this group returned them, making a total of thirteen who completed the follow-up phase of testing (see Appendix J).

Design

The design of this study was a 2 x 3 repeated measures mixed group design, using mean scores at pre-test, post-test and follow-up. The design possessed one between-group variable (the type of group, that is, intervention or alternative intervention group) and one within-group variable (time of testing, that is, pre-test,

post-test, follow-up). This design involved participants from each group being exposed to each of three testing phases: pre-test, post-test and follow-up.

Data Analysis

A series of factorial analysis of variance procedures (split-plot analysis) was undertaken on SPSS to explore the various hypotheses proposed for Study 2. Type of intervention (that is, intervention vs. alternative intervention group) was entered as a between-subjects variable and time of testing (that is, pre-test, post-test or follow-up) was entered as the within-subject variable. As suggested by Francis (2001), Type II sum of squares was used to adjust for the different number of subjects in each of the phases of testing (that is, pre-test post-test and follow-up). The various hypotheses were tested as follows:

Hypothesis 3: A factorial analysis of variance procedure was employed to make comparisons among the treatment means for each of the testing conditions for the maternal dissonance variable.

Hypothesis 4: A factorial analysis of variance procedure was employed to make comparisons among the treatment means for each of the testing conditions of the maternal self-esteem variable.

Hypothesis 5: A factorial analysis of variance procedure was employed to make comparisons among the treatment means for each of the testing conditions of the maternal well-being variable. Maternal stress was entered as a co-variate in this analysis.

Results - Study 2

SPSS 14.0 was again used to analyse the data. Unlike Study 1, there were no whole questionnaires incomplete, so no participants were omitted from the analysis. There was a scattering of missing data, involving 8 ratings in total, and, as in Study 1, the mean substitution method, as outlined by Tabachnick & Fidell (2001), was employed. In the follow-up phase, only thirteen of the intervention group and twelve of the alternative intervention group returned the questionnaires. As suggested by Francis (2001), the Type II Sum of Squares was used to adjust for different cell sizes. Data screening was done to assess the assumptions of normality, skewness and kurtosis. Each of the measures reflected normal distributions.

With regard to the demographic variables, it was found that across both the intervention and the alternative intervention samples most mothers fell within the category of twenty-six to thirty five years. Unlike the sample in Study 1, most mothers were found to possess a Year Twelve level education, and to be mothering only one child. Marital status remained similar to that of Study 1 in that most mothers were married (see Table 13). In conducting these exploratory analyses, comparisons were also made between the two groups. Overall, it was found that statistically, the two groups presented similarly for each of the demographic variables, with the exception of the child variable, in which the distribution was found to be more positively skewed than for the alternative intervention group. The details of these analyses can be viewed in Tables 14-17 below.

Table 13
Number of participants in each category of Study 2 (N=40).

Category	Age[a]	EdL[b]	MS[c]	Child[d]
1	1	12	38	21
2	24	17	1	16
3	11	4	1	3
4	4	7	NA	0

Note. The designation of each category was related to the variables as follows:
a Age=Age (1= 15-25, 2= 26-35, 3= 36-49, 4= 50+)
b EdL=Education Level (1= below Year 12, 2= Year 12, 3= undergraduate level, 4= postgraduate level)
c MS=Marital Status (1= married, 2=single, 3=divorced)
d Child=Number of Children (1= 1child, 2=2-3 children, 3= 3-4 children, 4= 5+ children)

Table 14
Number of participants in each category for age across intervention versus alternative intervention groups (N=40).

	15-25 years	26-35 years	36-49 years	50+ Years
Intervention	2	13	5	0
Alternative Int.	2	12	6	0

Table 15
Number of participants in each category for educational level across intervention versus alternative intervention groups (N=40).

	Below Year 12	Year 12 Level	Under-Graduate	Post-Graduate
Intervention	3	7	5	5
Alternative Int.	1	11	4	4

Table 16
Number of participants in each category for marital status across intervention versus alternative intervention groups (N=40).

	Married	Single	Divorced
Intervention	19	0	1
Alternative Int.	18	1	1

Table 17
Number of participants for number of children, for intervention versus alternative intervention groups.

	1 child	2-3 children	3-4 children	5+ children
Intervention	11	8	1	0
Alternative Int.	10	8	2	0

Inspection of Tables 14-17 and a series of chi-square tests of independence conducted on the data for each of the variables of age, education level, marital status and number of children confirmed that there were virtually no differences between the intervention and alternative intervention groups. In terms of the age variable, chi-square (.131) was found to be less than 5.9 (derived from the chi square distribution table when alpha = .05), therefore the null hypothesis was accepted. Similar results were found for the tests of marital status, education level and number of children, which yielded chi-square statistics of 1.03, 2.02 and .02 respectively.

Across both groups it can be seen that most mothers were aged between 26-35 years of age (see Table 14), with one child (see Table 17). The vast majority of mothers were currently in a relationship with their child/ren's father, and only one participant in each group was separated or divorced (see Table 16). All participants lived in the eastern suburbs of metropolitan Melbourne, Australia and based on

postcode could be considered to be from a middle income area. The lowest educational level, reported by three participants, was below Year 12 level, with the highest reported educational level being post-graduate studies, reported by five participants (see Table 15). No participants reported themselves to be of Aboriginal or Torres Strait Islander descent, and only one had been born overseas.

Hypothesis 3

> "Maternal dissonance will be reduced from pre-test to post-test as a result of the intervention. These gains will be maintained at one month follow-up. Maternal dissonance will not change over the same time period for the alternative treatment group."

A factorial analysis of variance procedure (split-plot analysis) was undertaken to explore the above hypothesis. The independent variables of group (intervention versus alternative intervention) and time (pre-test, post-test, follow-up) were examined for their effect on the dependant variable of maternal dissonance. Prior to interpretation of output, Mauchly's Test of Sphericity was found to be significant, W= .65 = 10.19, $p < .05$), and as a result the Greenhouse-Geisser adjustment was used to interpret the data. This decision was based on Field (2005), who suggests that when estimates of sphericity are less than .75 the Greenhouse-Geisser correction should be used. The means and standard deviations for each group at each different time of testing can be viewed in Table 18 and the results of the analysis in Table 19 below.

The between-subjects effect of group was significant, F (1, 25) = 17.35, $p <$ .001, providing evidence of an overall difference between the intervention and the alternative intervention group. Maternal dissonance was found to be lower overall, in the alternative treatment group (mean score of 1.88) compared to the intervention group (mean score of 3.60). This finding was unexpected, but it is qualified by the

significant Time by Group interaction. As Table 18 shows that, despite the random allocation process that was employed, the original pre-test means were notably different between the two groups.

Table 18
Means and standard deviations for maternal dissonance for each group across pre-test, post-test and follow-up (N=40).

Condition	Mean	Standard deviation
Pre-Test		
Intervention	7.40	3.18
Alt. Intervention	3.50	2.64
Post-Test		
Intervention	2.86	1.59
Alt. Intervention	.83	.93
Follow-Up		
Intervention	.53	.91
Alt. Intervention	1.25	1.05

The multivariate test of significance also provided evidence that the within-subject variable of time (with 1.49 degrees of freedom) was also significant ($p <$ .001). This suggests that differences occurred between the mean maternal dissonance scores at each of the time phases. This finding shows that across time maternal dissonance was reduced for both groups.

From the table below, it can also be seen that a significant interaction (Time x Group) was found in the current analysis, $F(1.49, 37.14) = 8.54$, $p = .002$. This suggests that the difference between the two groups with respect to maternal dissonance was not consistent across the times of testing (that is, pre-test, post-test or follow-up). Figure 2 displays this interaction pictorially.

Table 19
Summary of SPSS output for the factorial analysis of variance procedure (split-plot analysis) for the maternal dissonance variable (N=40).

	df	*SS*	*MS*	*F*	*p*
Within-subjects	37.14	203.54	5.60		
Time	1.49	348.91	234.81	42.84	.000***
Time x Group	1.49	69.54	46.80	8.54	.002**
Between-subjects	25	84.35	3.37		
Group	1	58.55	58.55	17.35	.000***

*** $p < .001$
** $p < .01$

In analysing this interaction effect, Meyer and Grossen (1974) suggest that the best way to determine the nature of the interaction is to plot it. Figure 2 displays the group by time interaction, using the mean scores for maternal dissonance. From Figure 2, it can be seen that both the intervention and the alternative intervention performed differently at the pre-test phase. This finding is supported by a post hoc analysis using the t-statistic (as recommended by Howell, nd). The outcome of this t-test yielded a significant difference between the pre-test intervention group and the pre-test alternative intervention group, $t = 4.60$, $p < .001$. A second post hoc analysis using the t statistic showed that at post-test the intervention group still showed significantly greater levels of dissonance, $t = 5.28$, $p < .001$. However, at follow-up, as can be seen in Figure 2, the intervention group had reduced their mean level of maternal dissonance to a mean score of .53, below that of the alternative intervention group who displayed a slight increase in their mean maternal dissonance score to 1.25. It was this reversal in dissonance at follow up that lead to the significant interaction and a final post hoc analysis revealed that there was now no significant difference between the two groups at this phase of testing, t=-1.66, $p = .11$.

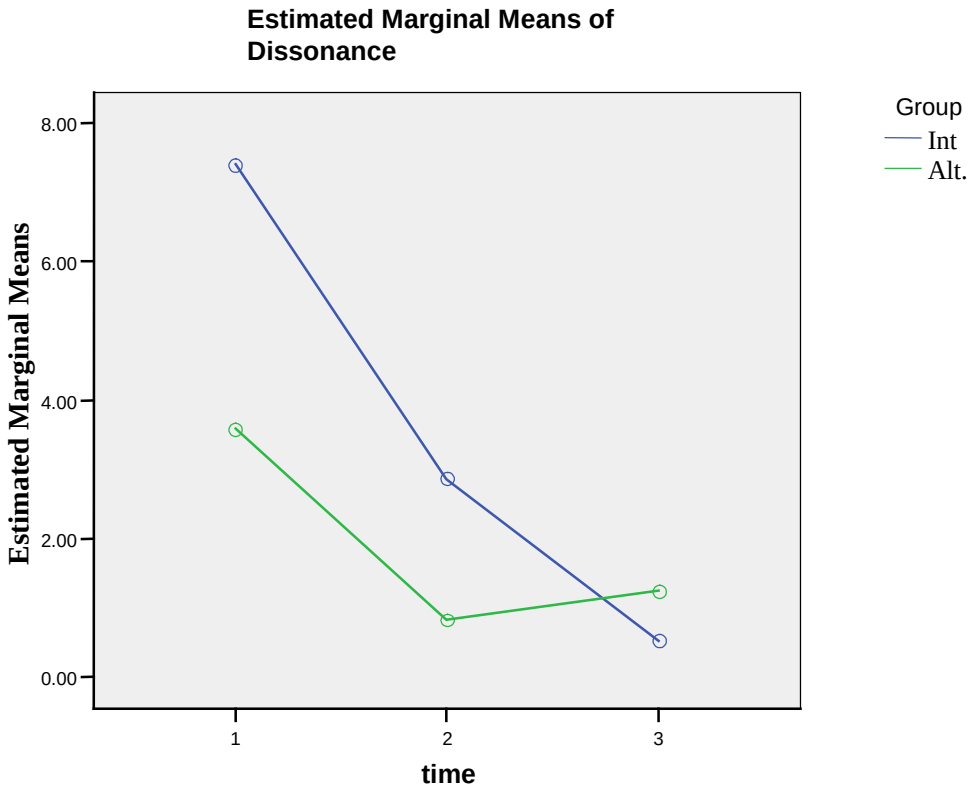

Figure 2: Pictorial representation of Time x Group interaction.

Hypothesis 4

"Maternal self-esteem will increase as a result of the intervention. These changes will be maintained at follow-up, one month later. No change will be recorded in maternal self-esteem over the same time periods for the alternative treatment groups."

Another factorial analysis of variance procedure (split-plot analysis) was undertaken to explore the above hypothesis. The independent variables of group (intervention versus alternative intervention) and time (pre-test, post-test, follow-up) were again examined, but this time for their effect on the dependent variable of maternal self-esteem. The results of this analysis can be seen in Table 20 below.

Sphericity, as tested by Mauchly's Test of Sphericity, was not significant (W = .891, = 2.87, $p > .05$), hence the 'Sphericity Assumed' statistic was used to interpret the data.

The findings of this analysis showed that the between-subjects effect of group was significant, $F(1,25) = 13.34$, $p = .001$, providing evidence of an overall difference between the intervention and the alternative intervention group. Maternal self-esteem was found to be lower overall, in the alternative treatment group (mean score of 59.19) compared to the intervention group (mean score of 63.71). Hence, the intervention group members were operating with higher levels of maternal self-esteem. The multivariate test of significance also provided evidence that the within-subject variable of time was also significant, $F(2,50) = 5.01$, $p = .01$. This finding suggests that overall, differences occurred between the maternal self-esteem mean scores at each of the time phases. All means and standard deviations can be viewed in Table 21 below. From this table, it can be seen that the overall (that being intervention and alternative intervention combined) pre-test, post-test and follow-up means were 59.07, 63.74 and 61.53 respectively. This shows that increases in maternal self-esteem were recorded from pre-test to post-test, but that these gains were not maintained into follow-up. Without an interaction effect of Group by Time $F(2,50) = 1.89$, $p = .16$, these findings suggests that both groups, although possessing different levels of maternal self-esteem, were operating in the same way. There was no difference between outcomes for participants in either group. The findings of the factorial analysis of variance procedure (split-plot) for maternal self-esteem can be seen in Table 20 below.

Table 20
Summary of SPSS output for the factorial analysis of variance procedure (split-plot analysis) of the maternal self-esteem variable (N=40).

	Df	*SS*	*MS*	*F*	*Sign. Of F*
Within-Subjects	50	1633.06	32.66		
Time	2	327.63	168.81	5.01	.01**
Time x Group	2	123.97	61.98	1.89	.16
Between-Subjects	25	764.21	30.56		
Group	1	408.00	7408.00	13.34	.001**

** $p < .01$

Hypothesis 5

> "Controlling for the level of maternal stress, maternal well-being of the intervention group will be enhanced at one-month follow-up. The level of maternal well-being will not be changed over the same time period for the alternative intervention group".

A third factorial analysis of variance procedure (split-plot analysis) was undertaken to explore the above hypothesis. This analysis controlled for the level of maternal stress. The independent variables of group (intervention versus alternative intervention) and time (pre-test and follow-up) were again examined, but this time for their effect on the dependent variable of maternal psychological well-being. It should also be noted that no post-test measure was taken for this variable, as instrument constraints did not allow this. The results of this analysis can be seen below in Table 22.

The findings of this analysis reveal there to be no significant difference between the groups (between-subject variable), $F(1,25)=1.33$, $p = .25$, nor the time periods (within-subject variable), $F(1,25)=1.01$, $p = .32$. These findings suggest that both the intervention and the alternative intervention groups had similar levels of maternal well-being and that these levels of maternal well-being did not alter

significantly from pre-test to follow-up. The interaction between Time x Group was not significant ($F(1,25) = .328$, $p = .572$). The means and standard deviations for this variable can be viewed in Table 23 below.

Table 21
Means and standard deviations for maternal self-esteem for each group at each time phase (N=40).

Condition	Mean	Standard Deviation
Pre-Test		
Intervention	60.73	3.48
Alt. Intervention	57.41	3.91
Overall Mean (pre-test + post-test)	59.07	
Post-Test		
Intervention	67.73	6.90
Alt. Intervention	59.75	4.35
Overall Mean (pre-test + post-test)	63.74	
Follow-Up		
Intervention	62.66	4.08
Alt. Intervention	60.41	3.17
Overall Mean (pre-test + post-test)	61.53	

Table 22
Summary of SPSS output for the factorial analysis of variance procedure (split-plot analysis) of the maternal psychological well-being variable (N=40).

	Df	*SS*	*MS*	*F*	*Sign. Of F*
Within-subjects	25	2428.09	97.12		
Time	1	98.16	98.16	1.01	.32
Time x Group	1	29.73	29.73	.306	.58
Between-subjects	25	4555.30	182.21		
Group	1	242.80	242.80	1.33	.259

Of note, in the follow-up phase of testing a significant negative correlation was yielded ($r = -.39$) suggesting that high levels of maternal stress were associated

with lower levels of maternal well-being. This finding not only echoes that of previous literature, but is similar to the correlation found in Study 1 for these two variables.

Table 23
Means and standard deviations for maternal psychological well-being for each group at each time phase (N=40).

Condition	Mean	Standard deviation
Pre-Test		
Intervention	60.2	15.9
Alt. Intervention	58.8	19.4
Follow-Up		
Intervention	58.8	5.53
Alt. Intervention	51.2	11.7

In summary, the findings revealed that while both intervention strategies employed in the present study were effective in reducing maternal dissonance in the short term, the REBT method appeared to provide its participants with a means through which they could continue to reduce their level of maternal dissonance over time, compared with the alternative intervention program. However, there was no difference between the effectiveness of either type of program in regard to increasing maternal self-esteem; both appeared just as effective, although gains were not maintained. Finally in terms of maternal psychological well-being, no significant effects were found, and the women remained severely stressed.

A final note to be made at this juncture is the difference between the level of maternal dissonance and the level of maternal self-esteem of participants in each of the intervention groups at the pre-test phase. It would appear that the procedure for random assignment to groups was either flawed, or by chance different group characteristics were formed.

Discussion

The present research was carried out to investigate maternal cognitions, in particular the concept of maternal dissonance, an area that is in its infancy in terms of empirical research. With little literature available, this variable was examined in a theoretical and clinical sense to ascertain its role in the maternal context. The research, conducted in two separate, yet simultaneously run studies, focused upon two maternal cognitions (namely maternal dissonance and maternal self-esteem) in relation to maternal psychological well-being from both a theoretical and clinical perspective. Study 1 explored the pathways through which maternal dissonance might operate on maternal psychological well-being, while Study 2 evaluated an REBT program for its effectiveness in reducing maternal dissonance and enhancing maternal self-esteem and maternal well-being. The major findings of the two studies are considered together below, followed by a presentation of some incidental findings, limitations of the present study and directions for future research.

Main findings and implications

The specific aim of Study 1 was to evaluate the pathway through which maternal dissonance might operate on maternal well-being. Maternal dissonance was conceptualized as a predictor of maternal self-esteem, which was in turn expected to moderate the relationship between maternal stress and maternal well-being. The results did not support the model and further (exploratory) analyses that were based on variations of the moderation model similarly yielded no supportive results. Therefore, neither Hypothesis 1, nor Hypothesis 2 was supported. A further exploration of maternal self-esteem as a possible mediator of the maternal stress – maternal well-being relationship was undertaken on the basis of the findings of a single unpublished dissertation (Chen, 1995), but again, no definitive support was

found for this alternative model. The only significant aspect of the original model was that, as expected, maternal stress was a significant negative predictor of maternal well-being. This outcome supported the findings of previous studies in both the general and maternal domain, such as those by Cotton and Hart (2003) and Treacey et al. (2005). So, in relation to the major cognitive variable of interest, maternal dissonance, it would seem that it did not play any part in determining the psychological well-being of mothers, despite there being a common assumption and qualitative evidence that it does portray a role (as well as good theoretical reasons for thinking that this might be the case).

The aim of the simultaneous study (Study 2) was to evaluate the effectiveness of an intervention program called 'Creating Happier Mothers'. This pre-existing REBT-based clinical program was designed to decrease maternal dissonance and increase maternal self-esteem. In accord with the model developed for Study 1, it was expected that the program would decrease maternal dissonance and increase maternal self-esteem and maternal well-being. Based on the theory of Study 1, it was also expected that those mothers at risk of high dissonance would be those with high idealistic mothering beliefs, hence this assumption was used as a basis for participant selection for Study 2.

The outcome of Study 2 did show some support for the prediction that 'Creating Happier Mothers' would be more effective in reducing maternal dissonance than its alternative counterpart, at least by the follow-up phase. Maternal dissonance reduced overall for both groups, despite the fact that the alternative treatment group received no REBT component. However, it was only the 'Creating Happier Mothers' group members who continued to display decreases in their levels of maternal dissonance at the follow-up phase. Therefore Hypothesis 3 was supported to some

extent. Maternal self-esteem similarly increased for both groups, at least in the short-term (post-test), but no maintenance of gains was yielded for either group at follow-up. As a result Hypothesis 4 was not supported. Furthermore, no effect of intervention on maternal well-being was evident for either group, and both groups remained in the severe distress category of the GWBS, yielding no support for Hypothesis 5.

Had the results for Study 1 been available prior to conducting Study 2, the underlying premise for the program evaluation would have been questionable. Given that Study 1 revealed no role for maternal dissonance in maternal well-being, it is not surprising that maternal well-being remained unchanged in Study 2 participants. Despite some indications of longer term maternal dissonance reduction, especially for the REBT intervention group, it is of some interest to find that maternal dissonance can be reduced through a group program. This it would appear is in part due to non-specific effects in the short term (Modules 1 & 2 of the program), since a reduction occurred in both groups from pre-test to post-test. Why it continued to reduce in the intervention group at follow-up may indicate delayed effects of REBT, but further investigation would seem needed to clarify this. However, if (as shown in Study 1) maternal dissonance has no effect on maternal well-being, it does suggest that the focus of the intervention is misplaced. This is an important contribution of the present research, from the point of view of evidence-based practice.

The premise upon which the model for Study 1 was constructed lay in the findings of very limited previous literature in the area. This literature suggested that maternal dissonance does have an effect on maternal psychological well-being. However, most of these outcomes were derived from qualitative studies such as Delmore-Ko et al. (2000), Lupton (2000) and Tammenti et al. (2004), and through

general social discourse about the ‘perfect mother’ image (Arnold, 2003; Ashley, 2003; Malacrida, 2001; Mauthner, 2003). Although argumentatively logical, empirical studies (noted to be few in numbers) tended to suggest maternal dissonance played a role in different relationships such as early parenting adjustment and self-perceptions about parental behaviour (Bornstein et al., 2003; Coleman et al., 1999). It may perhaps be the case that maternal dissonance is indeed relevant for these other areas, but not for the mother’s psychological well-being.

It is also worth mention at this juncture that delineating maternal outcomes, on an emotional level, from that of child outcomes is difficult, particularly given that the primary goal of a mother is to ensure appropriate development of her child through effective relationships and parenting skill. Hence, possessing expectations about mothering and living up to these expectations may be secondary, when compared to the needs of the child. Hence, her psychological well-being may be influenced by more tangible factors such as child behaviour, rather than discrepancy between ideal beliefs and actual beliefs. This relationship has been shown to be the case in literature studying maternal well-being and child medical needs, as well as maternal well-being and child development and behaviour (Abbeduto et al., 2004; Barlow et al., 2006). So, it may be that future research may need to consider maternal dissonance in terms of its impact on child outcomes, given the social context of the maternal role.

Maternal dissonance cannot be discussed without at least alluding to the instrument designed to evaluate it. The IPS was developed specifically for assessing maternal dissonance in these studies. In terms of outcomes for participants on this instrument, a significant positive correlation was found between the Idealistic subscale of the IPS and the Realistic subscale of the IPS, an unexpected outcome. Based on the accounts from social discourse literature, it is reported that social

expectations of the perfect mother are unattainable, but imposed on mothers and mothers recognise their attempts to be the perfect mother are flawed, creating compromised psychological well-being. Therefore in line with this thinking, it was assumed that a mother with would rate herself highly on the Idealistic scale of the IPS (she was trying to strive to be a perfect mother), but would rate herself lower on the Realistic scale because her mothering experience did not match the society imposed ideals. Be it a right or wrong rationale, the correlational outcome showed that high ideals about mothering were related to high beliefs about how she actually mothers. This was is contrary to expectation based on the above rationale. It may in fact be (given these findings) that ideals are not set first by the mother, rather she assesses her mothering ability and experience and if she perceives it to be high (ability) and positive (experience), then sets her ideals to match. Such a rationale would contradict that which is presented in social discourse literature and could be a line to be pursued in future research.

A significant positive correlation was also found between the Idealistic scale of the IPS and maternal self-efficacy (a component of maternal self-esteem). Again, this seems contrary to expected findings, where a mother with high ideals would feel less efficacious and struggle on a day-to-day basis because of her constant efforts to attain the 'perfect mother' image. In accounting for this, it would appear that the finding of Bornstein et al. (2001) may be applicable. In that study it was found that the self-report measures reflected how parents "wanted" to act (in that case child-parent interaction), rather than how they actually "did" act. Hence, in that study the belief and behaviour did not coincide. It would seem that these findings could also translate into the findings of the present research, in that the self-reported realistic beliefs may actually have represented how mothers would like to believe they act,

rather than being accurate representations of their actions. Only further research could clarify this. Also, the presence of a halo effect, where the attractiveness of the mothering role generally makes all other mothering attributes attractive and sought after, cannot be discounted as an influence on the present results.

In the present context, positive feeling about mothering (society's expectation) may be extended to the Realistic subscale of the IPS. Indeed, the positive correlations found may even be an example of Festinger's (1956) notion of cognitive consistency, whereby mothers with high ideals actively work to reduce any discrepancy with their beliefs about their actual functioning in the maternal role. This is then perceived to be better than it is in reality. From a theoretical perspective, this argument is similar to the findings of Festinger, Reciken and Schacter (1956; cited in Smith, 1993) when they observed cult behaviour and members' belief in a doomsday event which never eventuated. In that study, when the doomsday never occurred greater dissonance was created for the cult members; however this heightened sense of dissonance was reduced by accepting a new theory, that indeed the earth had been spared by the aliens. For mothers it may be that they too accept alternative beliefs to reduce their level of dissonance. Thus, the selection of mothers with high ideals for Study 2, made on the assumption that they would be high in dissonance, may have been misguided, although it should be noted that this was done because there was no data available at the time about the performance of the Dissonance scale with the larger sample in Study 1. High ideal scores seemed to be the best way (at that stage) of selecting mothers at high risk of maternal dissonance. Thus, this selection process may have actually selected mothers who had been actively working to reduce their high dissonance. This raises the question as to what effect exposing such mothers to REBT principles might have. Be that as it may, this research gave no support for the notion

of a relationship between maternal dissonance and maternal well-being, and it remains the domain of future research to determine the best way to measure maternal dissonance. It may be that possibly, a direct measure of "cognitive discomfort" would capture the concept of maternal dissonance better than the use of a derived score.

The failure of maternal self-esteem (or maternal self-efficacy) to moderate the relationship between maternal stress and maternal well-being (Study 1) was in contradiction to the research outcomes of Kwok and Wong (2000) and Wong et al. (2003), both being studies that found parental self-efficacy (a component of maternal self-esteem) to moderate the relationship of interest. While it is difficult to suggest the reasons for these contradictory findings (other than, perhaps, cultural differences in the samples), the findings of an early study by Rosenberg et al. (1995) may help in accounting for them. Although not studying the specific variables of the present research, in that study, when looking at global versus specific (academic) self-esteem, it was found that global self-esteem was more relevant to well-being, whereas specific self-esteem (academic) was more relevant to behaviour. It may in the case of the present study that measures of global self-esteem, rather than specific (maternal) self-esteem may have yielded more positive results. Nevertheless, the results of the present study suggest that maternal stress may be a more useful area of focus than maternal dissonance, in terms of promoting good maternal well-being, particularly as the literature suggests that compromised maternal well-being is particularly evident in specific populations of mothers (such as mothers with chronically ill children, or children with disability or developmental delay).

In terms of the finding regarding maternal self-esteem in Study 2, it would seem that maternal self-esteem can be enhanced in the short-term. Given that no interaction effect was yielded in the present analysis, it would suggest that the REBT

component of the intervention is not a necessity to enhance this maternal cognition. In a sense, this is not surprising as an REBT framework in the context of the present study focused on turning irrational beliefs into more rational beliefs about the individuals' mothering role, rather than maternal self-esteem per se. The REBT framework also differentiates self-esteem and self-worth from unconditional self-acceptance, which is then said to impact upon self-esteem (Harrington, 2006). It may be that it was the similar modules undertaken by both of the groups (Modules 1 and 2) that were more influential in the enhancement of maternal self-esteem in the short-term and hence, why both groups operated in a similar fashion.

In regard to the lack of gains in the follow-up phase, other studies in the parenting domain have also acknowledged this dilemma (Hagan et al., 2004; Herzgog, 1996). For example, in a study that evaluated a parenting program related to maternal wellbeing, maternal self-esteem and social support, it was found that there were no long term gains (Lipman & Boyle, 2005). In that study, in the short term it was found that the program significantly improved mood and mother's self-esteem. However, these effects were not noted in the longer term. Thus, it would appear that these findings echo the findings of the present study in relation to the maternal self-esteem variable. It could be that more targeted and intensive work, with booster sessions, is required in order to sustain enhanced levels of maternal self-esteem, although given the results of Study 1, interventions that focus specifically on maternal stress reduction would appear a surer method of enhancing maternal well-being, rather than maternal self-esteem only.

A note should also be made, that the social nature of both groups in Modules 1 and 2 may have impacted on the maternal self-esteem result. Mothers being with mothers, discussing mothering issues may have played an influential role increasing

maternal self-esteem. Although social comparison has been found to influence mothers negatively, perhaps in a positive context, where mothers are with, and are supported by mothers experiencing similar difficulties, such as conflicted feelings about their mothering role, it may be that maternal self-esteem is increased in the short term ("I'm not really that bad as a mother" or "I do that too, so I am not that bad"). Support for this can be found in the literature regarding support groups as well as that of social discourse. Indeed, in a study by Kruske, Schmied and O'Hare (2004), it was found that a support group called the "Early Bird Program" increased mothers' confidence and satisfaction concerning their role (the components of maternal self-esteem). Secondary gains in terms of maternal competence have also been found in more traditional parenting programs (Bunting, 2004). Therefore, it may be that the nature of the group also had an effect in enhancing this cognition in the short term for Study 2.

To return to maternal stress, overall, from previous research it has been found that stress is a multi-faceted variable. Not only have different types of parental cognitions been found to influence parental stress, but so too have extraneous and environmental variables such as social support, financial concerns and employment status. Research from a social work/welfare perspective suggests that supporting a mother and family through a silo (that is, focusing on only one aspect of need to the exclusion of all others) may not be helpful. Rather, family life cycle and the influence of outside institutions, such as school and cultural influences, all warrant attention (Constable & Lee, 2004). As such, it may be that future research needs to incorporate such extraneous and environmental factors with maternal cognitions to provide a more holistic picture of the influence of maternal stress on the mother.

It should also be mentioned that stress reduction programs are abundant in the community context. Such programs range from personal programs, directed at a mother's individual well-being such as yoga, exercise and gym plans as well as meditation, to secondary gains from psycho-educational programs to provide parent skills in child management, such as the Triple P program or Magic 1-2-3. The efficacy of the latter type of programs has been discussed elsewhere in this report, but research is beginning to emerge regarding the more personal stress-reduction programs. In a study by Minor, Carlson, McKenzie, Zernick, and Jones (2006), when evaluating an 8-week mindfulness based program to reduce stress in mothers of chronically ill children, participants on average reduced their level of stress by 32%. Mood disturbance was also assessed in that study, and again it was found that participants were able to reduce this by 56% at the post-test phase. Similar findings have been cited by Treacey et al. (2005), Wolfe and Hirsch, (2003) and Costin et al. (2004). However, although the results are positive, they must be interpreted cautiously, as design flaws (such as a lack of control, cited by Minor et al., 2006) may have contributed to the findings.

In seeking to develop programs to enhance maternal well-being, the format of the workshops – whether they be single-session or multiple-session - needs consideration. It would seem that a single session intervention, as in the present research, may not be particularly effective. Indeed, Iveson (2002) suggests that successes in single session therapy are generally few, although Sofronoff and Farbotko (2002) found in their study that a one-day format was just as effective as a weekly program. So, in the case of maternal well-being, it is unclear whether longer term, regular (that is, weekly), more structured sessions are required. Research into single session versus multiple session therapy generally suggests that longer term

therapy is better if you want to understand patterns of behaviour and how they develop in individuals (www.psychologytoday.com). Similarly, Rose, Bisson and Wessely (2003) found in their literature review of single sessions (debriefing) after trauma that of eleven studies, only three showed positive outcomes, six demonstrated no difference between intervention and non-intervention groups, and two showed negative outcomes for the intervention group. On this basis, it was concluded that the single-session interventions were overall not effective. Stice and Shaw (2004) also found that multiple sessions were more effective than single sessions in their review of programs targeted at prevention of eating disorders. In the case of the present study, the workshop was more psycho-educational than therapeutic in nature, and research findings in this domain (psycho-educational) tend to indicate that such programs are effective for 'at risk' participants (Thomas & Looney, 2004). Although a meta-analytic study by Stapleton, Lating, Kirkhart and Everly (2006) found that multiple session formats were more commonly used to reduce symptoms of high prevalence disorders, a more recent study by Hayes, Matthews, Copley and Welsh (2007) evaluating a one-day parenting program showed more positive outcomes for that format. Thus, further research is required in this area in order to gain clarity.

Overall, this research has highlighted the lack of clarity of maternal psychological well-being in its own right, examined the role of maternal cognitions in maternal well-being and seriously questioned the purported role of maternal dissonance in maternal well-being. In addition, some incidental findings emerged, and these are discussed below before considering the limitations of the present research.

Incidental findings

Study 1 found that being divorced was marked by a surprisingly high level of self-esteem, greater than married and single mothers. Historically, literature in this

area suggests that divorce adversely impacts upon maternal psychological well-being (Gove & Shin, 1989). This is also supported by Australian statistics that show 18% of divorced women suffer from mental health issues, compared to only 9% of married women (www.abs.gov.au). Dush and Amato (2005) support the above findings: in their research, when studying the consequences of relationship status on subjective well-being, married couples reported the highest levels of subjective well-being. Thompson and Ensminger (1989), who found that single parenting was a risk factor for higher levels of psychological distress, have also echoed this. Thus it would appear that the correlational results yielded in the present study contradict findings in the area. However, more recent studies, for example, Islam & Brown (2004) suggest that marital status has little effect on the mental health of parents (in particular depression), a finding supported by Silverman (1999), who found that marital status was not related to subjective well-being or dysphoria. A third study also found the level of social support to be influential in this relationship (Cairney, Boyle, Boyle, Offord & Racine, 2004). So, it may that the social context of marital status is changing in terms of psychological well-being and that the findings in the current research may be more aligned with such latter studies. Therefore, it may also be an area of interest for future research, given the changing nature of individual and societal perceptions of marital status. With divorce being less stigmatized and with the advent of different types of family structure, it may also be that self-belief in individuals is also changing, hence reflected in the correlations found in this study. The finding from the current study which found higher maternal self-esteem in this group supports emerging data which show that women initiate divorce twice as much as men, experience less stress and shows better role adjustment after divorce, and

amongst other variables display higher levels of self-esteem than men, particularly as new roles, post-divorce, are added to their life (O'Connell Corcoran, 1997).

One correlation of particular interest was the positive relationship between the mother's level of education and her level of maternal self-esteem. The present research finding suggests that the higher the level of mother's education, the higher her level of maternal self-esteem. Similar to many areas of research in the mothering domain, the results of previous studies have tended to show inconsistent results (McGrath & Meyer, 1992). Although some early research in the area of general self-esteem suggested that the higher the educational accomplishment the greater the increased level of self-esteem (Parker, 1990), other literature has not been so definitive (McGrath & Meyer, 1992).

The age of the mother was also found to be positively associated with both maternal self-esteem and maternal psychological well-being. In terms of the former association, this finding seems to support other research and information in this area, which suggests that older mothers have higher self-esteem and confidence in their child-rearing skills (www.expectantmothersguide.com/library/stlouis/SSLGOV _maternal _age.htm; McMahon, 1992). Although contradictory findings do exist (Roosa, 1988), it may be that this association is of interest to future research given that women are now giving birth for the first time at an older age. It may also be interesting to assess how childbirth at an older age impacts on parental cognitions.

Limitations of the research

The first limitation of the present study was the time constraints that impacted on the design. As this study was conducted as part of a higher degree, time in which to undertake the research was limited, hence the decision was made to conduct Study 1 and Study 2 simultaneously. As a result, there was no opportunity to use the

outcomes gained in Study 1 as a basis to develop Study 2, yet the premise of Study 2 relied on the theoretical model developed for Study 1.

Similarly, the time constraints of the present research also impacted on the development of the IPS. Being unable to acquire an already established instrument with respect to maternal dissonance, the IPS was developed from a single instrument, for which permission for use was given. Hence, issues such as validity and reliability of the IPS need far greater analysis. Although the reliability for the scales in Study 1 was adequate, this was less so in Study 2, and the reduction of the number of items to establish reliability in each of the two corresponding scales may have reduced the scope of the questionnaire. Reliability was also a little problematic for the derived Dissonance scale of the IPS, especially for the follow-up phase of Study 2, given the reduction in the number of participants (those who did not return the follow-up questionnaires). With a greater length of time, it is acknowledged that deeper analysis of the scales could be conducted and, as discussed previously, there are general issues about how maternal dissonance should best be measured.

Indeed, testing of cognitive dissonance generally has been noted in early studies to be difficult (Krause, 1972). Previous research (not specific to mothering) seem to have induced situations of cognitive dissonance making it difficult to disconfirm the theory (Krause, 1972). In this study, a more naturalistic assessment of degree of dissonance in maternal everyday functioning was attempted (through items of the IPS), and in essence the concept of maternal dissonance was assumed to exist. It may be that this premise regarding the existence of maternal dissonance needs to be addressed and assessed in more detail in future research in this area.

In keeping with discussion of the IPS, another limitation to be noted was the scoring of the IPS. Although seemingly logical that negative dissonance scores were

meaningless and thus re-coded as zero, such negative scores may have possessed meaning, therefore further research is required to gain an understanding of such a phenomenon.

It should be noted that debate over the use of self-report psychological measures exists. Self-report measures are reported to be questionable in terms of their construct validity or lack thereof (Crowne & Marlow, 1964; Paulhaus, 1991), as well as a range of biases, particularly when all variables in a study use this method of data collection (Frese & Zapf, 1988; Spector & Brannick, 1995). It is acknowledged that such biases were present in the current research. However, of particular interest to this study is the social desirability bias. Social desirability bias refers to the tendency to answer self-report items in such a way as to deliberately or unconsciously represent oneself in a favourable light (Edwards, 1953). Given that the present study utilized mothers, who are arguably under the influence of maintaining the 'perfect mother image' (as discussed in the literature review), there may be a risk of this particular type of bias occurring. It may be that the social desirability bias may have also been influential in the positive association found between the Idealistic and Realistic scales of the IPS.

Nevertheless, besides the issues of the IPS, the other instruments used in this study were well-established. All had adequate reliabilities, which were echoed in this study. However, the point made by Frese and Zapf (1988) about the exclusive use of self-report instruments, may have merit. Of particular interest, in Study 1, there were some participants who had to be excluded because they left whole questionnaires blank, while participants in Study 2 tended to make comments on the questionnaires. Some comments were about specific items, but many others were justifications for the responses that they had selected. It would seem that concerns around responses being

socially acceptable were more apparent for participants in Study 2. This may be accounted for by the fact that participants were identifiable in this second study (in particular the post-test condition, where participants were familiar with each other and although they completed questionnaires individually, were still in a in the group environment), whereas the questionnaires were completely anonymous in Study 1.

A second area of limitation was the screening process, in particular using high ideal scores on the IPS, through which participants were selected for Study 2. Although discussed previously it needs addressing at this point. Not only did screening using the IPS assume maternal dissonance, but randomisation appears to have been compromised, although it is not clear how this happened, and it was noted that no members of either group had known each other prior to the program. Therefore, the results of Study 2 should be interpreted with caution.

With regard to the participants themselves in Study 2, it should be noted that most were from middle income areas, currently residing with their husbands. It has been noted that while two parent families from middle class Anglo-Saxon backgrounds have in the past been seen as the prototypical Australian family, the extent to which one can now generalise from this group to families with varying compositions and from differing cultural backgrounds is a moot point (McBride et al, 2002). It would seem to be no different for Study 2, and as such the specific characteristics of the participants might have interacted with the manipulation such that the observed effects might not be found with other groups.

It should also be noted that, in Study 2, return of questionnaires in the follow-up phase was problematic. Only 65% of participants returned the follow-up questionnaires for the intervention group, and 60% for the alternative intervention group was recorded. Various studies cite attrition figures of 32% in control groups

and 16% for treatment groups (Spinelli & Endicott, 2003), and so given the small number of participants in each group of the present study, it is disappointing, but not an unexpected occurrence. However, this too may have had an effect on the outcome of the results, hence mindfulness needs to be taken in their interpretation.

Finally, as stated previously, in terms of limitations of Study 2, the one-day, 8-hour format of the intervention group, as well as the half-day format of the alternative intervention group, requires comment. Although discussed earlier, it may be that because of the volume of information presented to participants in each of the intervention groups, the expected change was overwhelming for participants. It may be that presenting the modules in weekly sessions would have had a more positive impact, rather than a single session format. Similarly, there is also a limitation in such a group format, that individual differences cannot be explored adequately because of time constraints. Also, where the psycho-educational nature of the group places a responsibility on the facilitator to make sure *all* material is covered, it may be that the participants can become overwhelmed with information. Particularly when individuals may have compromised well-being, it is important to spend time on individual needs. A weekly format over a number of weeks would allow for such to occur, as well as promote a more social and secure environment for the participants to begin the process of change. Furthermore, as mentioned previously, the groups were not equated for time spent at the program. To equate the time spent between the groups may have reduced any effects of the presence of the facilitator and her influence on the group and its members. Although there was control for general factors such as attendance and group support, which would not have been the case had a wait-list control group been employed, this time difference may have had an impact on the outcome of the present research.

Directions for future research

The results of this research have shown that there is a need for further research to clarify the present findings and build upon knowledge in this area. In the first instance, the concept and measurement of maternal dissonance requires further investigation. To assess the reliability and validity of the instrument developed for this research is paramount. If the area of maternal dissonance is to become an area of more interest into the future, confidence in the instruments used to assess this concept will be required.

In undertaking such research, it would also be interesting to investigate whether the positive relationship between the Idealistic and the Realistic scales of the IPS (as found in Study 1) is replicated, and then testing whether this relationship between the two scales is indeed a tangible example of cognitive consistency. Hence, the IPS could then be broadened into a more multi-faceted instrument for mothering. Investigation of direct, as opposed to derived, measures of maternal dissonance would also be worth pursuing, as well as efforts made by mothers to minimize their discomfort.

Secondly, in developing research in the area of maternal cognition generally, there would seem a need to encompass both environmental and social influences into future explorations. It may be that the complexities of parenting, as presented by Belsky (1984) can be used specifically in the future assessment of the experience of mothering. It may also be that issues such as family of origin need consideration as a reason for a mother's belief about her mothering. For example, compromised childhood experiences or poor maternal role models may influence the nature of the maternal experience. It may also be that rather than focus on cognitions themselves as

outcomes, more tangible outcomes such as the parent-child relationship may be a more pertinent area of research.

It may also be that future research could focus on the role of maternal satisfaction, rather than maternal self-efficacy, as a moderator of the maternal stress-maternal well-being relationship, particularly given the outcome of recent research findings such as that of Young et al. (2006). As suggested by these researchers the affect dimension of satisfaction may be more directly linked to psychological well-being, whereas self-efficacy may be more linked to parenting behaviour. This was not tested in the present study and future investigation would clarify this notion.

From the outcomes of the current research, it would seem adviseable to monitor the participant characteristics carefully. The current study did tend to focus on one sub-cultural group on the one hand, but also possessed a large age range on the other. Such demographic characteristics may have interacted in unforeseen ways with the variables of interest. Therefore such variables need to be the subject of tighter control in future work to determine their impact.

In terms of using a group work strategy to decrease irrational beliefs of mothering, more thorough exploration is needed. Although anecdotal feedback in terms of participants' comments and e-mail letters to the facilitator were positive, these did not transfer into the statistical analysis. This point was also noted in the study by Goldberg (1987). It may be that further analysis is required to disentangle the supportive qualities of the group experience from the psycho-educational component to ascertain why differences occurred between the anecdotal remarks at the end of the workshop and the outcome of the statistical evaluation.

Finally, although incidental to the present study, the findings in relation to the variables of divorce and age were of interest. It would be of benefit to study these in

the broader population to assess whether societal changes are influencing relationships between these variables and parental cognitions, or whether the participants of the present study were to a certain extent unique. It might also be that the age of the children were affecting the reactions of mothers, a factor that probably needs to be examined more closely in future research.

In general, the wider demographic factors, although more sociological than psychological in nature, might have to be given more prominence in psychological research. An understanding of the social context in which mothering takes place may provide a better understanding of the cognitions of the mother.

Conclusion

In conclusion, it would appear that maternal dissonance research, although in its infancy, requires much more exploration to find out where and how it fits into the mental world of the mother. The overall results suggest that maternal cognitions and their interrelationships are more complex in nature than that presented in the current study. Although social discourse and qualitative research suggest maternal dissonance to be an important entity, the present research indicates that its role may not lie in its relationship to maternal well-being. Given the findings of Study 1, of greater importance may be a focus on maternal stress reduction in the development of evidence-based programs to foster maternal well-being more so than either maternal self-esteem or maternal dissonance.

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Appendix A

Plain Language Statement for Study 1

PLAIN LANGUAGE STATEMENT AND INFORMED CONSENT
PROJECT TITLE:
THE ROLE OF DISSONANCE IN THE EXPERIENCE OF MOTHERING.
(STUDY 1)

RESEARCHERS:

Professor Rosalyn Shute
Principal Researcher

Ms Vanessa Wing-Quay
Student Researcher

My name is Vanessa Wing-Quay and I am studying for my Doctor of Psychology (Clinical) at The University of Ballarat, Mount Helen Campus. A research project is an important component of the course and I am undertaking mine under the supervision of Professor Rosalyn Shute, Director of Psychology at the University of Ballarat. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate.

The aim of this project is to explore the role that beliefs about mothering play in maternal well-being. It has been shown that maternal stress influences maternal well-being, but the role of how satisfied we are with mothering and how good we believe we are at mothering, along with our ideal expectations versus reality of mothering, has not been well established. It is these factors which will be explored through this research. I believe the findings of this project will be useful in contributing to knowledge in this area.

I am seeking mothers with children aged between birth and 10 years who are prepared to fill out the attached questionnaires about their own experiences of maternal stress, maternal well-being, beliefs about mothering and maternal self-esteem. The procedure will take approximately forty-five minutes of your time, and could be undertaken at home, at your convenience, and returned using the pre-paid reply envelope provided. Conversely, you could complete the questionnaires straightaway and return them to the researcher sealed in the envelope provided. You are invited to view the questionnaires prior to deciding to participate in the project. You are also free to end your participation at any time.

As stated, the questionnaires require you to reflect upon your own experiences, beliefs and feelings about mothering, and although for most participants this will not be a distressing task there is a possibility, however slight, that participants may become upset or concerned about their responses. If you are unduly concerned about your response to any of the questionnaire items you can contact Lifeline (a free telephone counselling service) on 13 1114. You are also free to contact Professor Rosalyn Shute about any concerns you may have. Professor Shute will discuss your concerns with you confidentially, and suggest appropriate follow up if necessary.

Although findings of this research report may be published or presented at a conference, no findings will be published which will identify any individual participant. Anonymity is assured by our procedure, in which you are not asked to provide your name on any of your questionnaire response sheets. Because of the nature of data collection, we are not obtaining written consent from you. Rather we assume that you have given consent by your completion and return of the questionnaires. Access to data is restricted to my Supervisor and to me. Coded data are securely stored for five years, as prescribed by University regulations, and then destroyed.

Participation in this research is entirely voluntary, and if you agree to participate, you may withdraw your consent at any time by not returning the questionnaires or returning them blank. You also have the right to have your data withdrawn or destroyed up until it has been put together with other responses when it will not be possible to identify it.

If at anytime you have any questions (or would like to be informed of the overall research findings), please contact my supervisor through the information provided below.

Thank you for your time,

Professor Rosalyn Shute Ms Vanessa Wing-Quay

Any questions regarding this project can be directed to the Principal Researcher

Professor Rosalyn Shute

of the School of Behavioural and Social Sciences and Humanities

on telephone number 5327 9620

Should you (that is, the participant) have any concerns about the conduct of this research project, please contact the Executive Officer, Human Research Ethics Committee, Research & Graduates Studies Office, University of Ballarat, PO Box 663, Mt Helen VIC 3353.

Telephone: (03) 5327 9765

Appendix B

Battery of Questionnaires used in Study 1 and Study 2

Maternal Information Questionnaire

Please mark the box most applicable to you:

Which age range best describes you:

15 - 25	26 - 35	36 - 49	50 +

How many children do you have?

1	2 -3	4 - 5	5+

What ages are your children?

Child 1: _____
Child 2: _____
Child 3: _____
Child 4: _____
Child 5: _____
Other : _____

What is the postcode of your current address?

Postcode _____

Where were you born?

Australia			
Other		**Please specify:**	_____

What is your marital status?

Married		**Single**		**Divorced**	

Are you an Aboriginal or Torres Strait Islander?

Yes	**No**

What was your highest level of education ?

Below Year 12	
Year 12 Level	
Undergraduate Studies	
Post Graduate Studies	

Questionnaire 1

On this questionnaire are 16 items relating to your feelings about being a parent. Please read each item carefully and rate whether you feel it applies to you, by circling a number from 1 (strongly agree) to 6 (strongly disagree) on the scale.

The rating scale is as follows:

1 Strongly agree
2 Agree
3 Mildly agree
4 Mildly disagree
5 Disagree
6 Strongly disagree

1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his/her present age.	1	2	3	4	5	6
3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5	6
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5	6
5. My mother was better prepared to be a good mother than I am.	1	2	3	4	5	6
6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.	1	2	3	4	5	6
7. Being a parent is manageable and any problems are easily solved.	1	2	3	4	5	6
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5	6
9. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	6
10. I meet my own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
11. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
12. My talents and interests are in other areas, not in being a parent.	1	2	3	4	5	6

13. Considering how long I've been a mother, I feel thoroughly familiar with this role.	1	2	3	4	5	6
14. If being a mother were only interesting, I would be motivated to do a better job as a parent.	1	2	3	4	5	6
15. I honestly believe that I have all the skills necessary to be a good mother to my child.	1	2	3	4	5	6
16. Being a parent makes me tense and anxious.	1	2	3	4	5	6

Questionnaire 2

People can have many different ideas and experiences about mothering. Please indicate your agreement/disagreement with each of the following statements by circling the number which best reflects your thinking.

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
1.Mothers should find being with their children a wonderful experience.	4	3	2	1
2.Mothers should have a pleasant life, free of any hassles.	4	3	2	1
3.Mothers are no good if their children do not behave well.	4	3	2	1
4.I believe a mother should always be successful.	4	3	2	1
5.Mothers should always be able to control a situation.	4	3	2	1
6.Mothers whose children have difficulties must be doing something wrong.	4	3	2	1
7.Mothers must always know what to do.	4	3	2	1
8.A mother who make mistakes is not a worthwhile person.	4	3	2	1
9.A mother can never be a good person if she is not a success as a mother.	4	3	2	1

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
10.Keeping completely on top of things on a day to day basis should be a priority for mothers.	4	3	2	1
11.Being totally competent at important things in life is a must for self-respect.	4	3	2	1
12.Keeping things under control in life should not be a struggle for mothers.	4	3	2	1
13.Mothers who find things difficult are still worthwhile people.	4	3	2	1
14.For good mothers things should go smoothly at home.	4	3	2	1
15.It is impossible for mothers to manage their children so well that things always go to plan.	4	3	2	1
16.Mothers need to keep up with the household jobs, as the worst thing in the world is not to get them done.	4	3	2	1
17.A mother should be beyond criticism as a parent.	4	3	2	1
18.Good mothers should be able to keep things under control.	4	3	2	1
19.Good mothers should be able to cope with daily hassles.	4	3	2	1
20.It is crucial for a mother to avoid feeling tense.	4	3	2	1

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
21.Mothers should be able to manage their children at all times.	4	3	2	1
22.Mothers should be able to make a success of mothering from the start.	4	3	2	1
23.I find being with my children a wonderful experience.	4	3	2	1
24.I have a pleasant life free from any hassles.	4	3	2	1
25.My child/ren do not always behave well.	4	3	2	1
26.I believe I am a successful mother.	4	3	2	1
27.As a mother I can always control a situation.	4	3	2	1
28.My children have difficulties.	4	3	2	1
29.As a mother, I always know what to do.	4	3	2	1
30.I make mistakes as a mother.	4	3	2	1
31.I am a success as a mother.	4	3	2	1
32.As a mother I am able to keep completely on top of things on a day-to-day basis.	4	3	2	
33.I feel totally competent at important things in life.	4	3	2	1
34.I find it a struggle to keep things under control in my life.	4	3	2	1

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
35.As a mother I find things difficult.	4	3	2	1
36.I find things go smoothly at home.	4	3	2	1
37.I manage my children so well that things always go to plan.	4	3	2	1
38.I am able to keep up with the household jobs.	4	3	2	1
39.I am beyond criticism as a mother.	4	3	2	1
40.I am able to keep things under control.	4	3	2	1
41.I can cope with the daily hassles.	4	3	2	1
42.I often feel tense.	4	3	2	1
43.I am able to manage my children at all times.	4	3	2	1
44.I made a success of mothering right from the start.	4	3	2	1

Questionnaire 3

Read - This section of the examination contains questions about how you feel and how things have been going with you. For each question, mark (X) the answer which best applies to you.

1. How have you been feeling in general? (DURING THE PAST MONTH)

1		In excellent spirits
2		In very good spirits
3		In good spirits mostly
4		I have been up and down in spirits a lot
5		In low spirits mostly
6		In very low spirits

2. Have you been bothered by nervousness or your "nerves"? (DURING THE PAST MONTH)

1		Extremely so - to the point where I could not work or take care of things
2		Very much so
3		Quite a bit
4		Some - enough to bother me
5		A little
6		Not at all

3. Have you been in firm control of your behaviour, thoughts, emotions OR feelings? (DURING THE PAST MONTH)

1		Yes, definitely so
2		Yes, for the most part
3		Generally so
4		Not too well
5		No, and I am somewhat disturbed
6		No, and I am very disturbed

4. Have you felt so sad, discouraged, hopeless or had so many problems that you wondered if anything is worthwhile? (DURING THE PAST MONTH)

1		Extremely so - to the point that I have just about given up
2		Very much so
3		Quite a bit
4		Some - enough to bother me
5		A little bit
6		Not at all

5. Have you been under or felt you were under any stress, strain or pressure? (DURING THE PAST MONTH)

1		Yes - almost more than I could bear or stand
2		Yes - quite a bit of pressure
3		Yes - some - more than usual
4		Yes - some - but about usual
5		Yes - a little
6		Not at all

6. How happy, satisfied or pleased have you been with your personal life? (DURING THE PAST MONTH)

1		Extremely happy – could not have been more satisfied or pleased
2		Very happy
3		Fairly happy
4		Satisfied – pleased
5		Somewhat dissatisfied
6		Very dissatisfied

7. Have you had any reason to wonder if you were losing your mind or losing control over the way you act, talk, think, feel or of your memory? (DURING THE PAST MONTH)

1		Not at all
2		Only a little
3		Some - but not enough to be concerned or worried about it
4		Some, and I have been a little concerned
5		Some, and I am quite concerned
6		Yes, very much so and I am very concerned

8. Have you been anxious, worried or upset? (DURING THE PAST MONTH)

1		Extremely so - to the point of being sick or almost sick
2		Very much so
3		Quite a bit
4		Some - enough to bother me
5		A little bit
6		Not at all

9. Have you been waking fresh and rested? (DURING THE PAST MONTH)

1		Every day
2		Most every day
3		Fairly often
4		Less than half the time
5		Rarely
6		None of the time

10. Have you been bothered by any illness, bodily disorder, pains or fears about your health? (DURING THE PAST MONTH)

1		All the time
2		Most of the time
3		A good bit of the time
4		Some of the time
5		A little of the time
6		None of the time

11. Has your daily life been full of things that were interesting to you? (DURING THE PAST MONTH)

1		All the time
2		Most of the time
3		A good bit of the time
4		Some of the time
5		A little of the time
6		None of the time

12. Have you felt down-hearted and blue? (DURING THE PAST MONTH)

1		All the time
2		Most of the time
3		A good bit of the time
4		Some of the time
5		A little of the time
6		None of the time

13. Have you been feeling emotionally stable and sure of yourself? (DURING THE PAST MONTH)

1		All the time
2		Most of the time
3		A good bit of the time
4		Some of the time
5		A little of the time
6		None of the time

14. Have you felt tired, worn out, used-up or exhausted? (DURING THE PAST MONTH)

1		All the time
2		Most of the time
3		A good bit of the time
4		Some of the time
5		A little of the time
6		None of the time

For each of the four scales below, note that the words at each end of the 0 to 10 scale describe opposite feelings.
Circle any number along the bar which seems closest to how you have generally felt DURING THE PAST MONTH.

15. How concerned or worried about your HEALTH have you been? (DURING THE PAST MONTH)

0 1 2 3 4 5 6 7 8 9 10

Not concerned At all — Very Concerned

16. How RELAXED or TENSE have you been? (DURING THE PAST MONTH)

0 1 2 3 4 5 6 7 8 9 10

Very Relaxed — Very tense

17. How much ENERGY, PEP, VITALITY have you felt? (DURING THE PAST MONTH)

0 1 2 3 4 5 6 7 8 9 10

No energy At all, Listless — Very Energetic

18. How DEPRESSED or CHEERFUL have you been? (DURING THE PAST MONTH)

0 1 2 3 4 5 6 7 8 9 10

Very Depressed — Very cheerful

Questionnaire 4

Please read each question carefully and answer according to the scale below:

SA: Strongly Agree

A: Agree

NS: Not Sure

D: Disagree

SD: Strongly Disagree

1. I often find that I cannot handle things well.
   SA A NS D SD
2. I find myself giving up more of my life to meet my children's needs than I ever expected.
   SA A NS D SD
3. I feel trapped by my responsibilities as a parent.
   SA A NS D SD
4. Since having this child, I feel that I am almost never able to do things I like to do.
   SA A NS D SD
5. I am unhappy with the last purchase of clothing I made for myself.
   SA A NS D SD
6. Since having this child I have been unable to do new and different things.
   SA A NS D SD
7. There are quite a few things that bother me about my life.
   SA A NS D SD
8. Having a child has caused more problems than expected in my relationship with my spouse (or male/female friend).
   SA A NS D SD
9. I feel alone and without friends.
   SA A NS D SD
10. When I go to a party, I usually expect not to enjoy myself.
    SA A NS D SD
11. I am not as interested in people as I used to be.
    SA A NS D SD
12. I don't enjoy things as I used to do.
    SA A NS D SD
13. My child rarely does things for me that make me feel good.
    SA A NS D SD
14. Sometimes I feel like my child doesn't like me and doesn't want to be close to me
    SA A NS D SD
15 My child smiles at me much less than I expected.
    SA A NS D SD
16 When I do things for my child, I get the feeling that my efforts are not appreciated very much.
    SA A NS D SD
17 When playing my child doesn't often giggle or laugh.
    SA A NS D SD
18 My child doesn't seem to learn as quickly as most children.
    SA A NS D SD
19 My child is not able to do as much as I expected.
    SA A NS D SD
20 It takes a long time and is very hard for my child to get used to new things.
    SA A NS D SD
21 My child doesn't seem to smile as much as other children.
    SA A NS D SD

22. For the next statement, choose your response from the choices “1” to “5” below.
I feel that I am: 1. not very good at being a parent.
2. a person who has some trouble being a parent
3. an average parent
4. a better than average parent
4. a very good parent.

1 2 3 4 5

23. I expected to have a closer and warmer feelings for my child than I do and this bothers me

SA A NS D SD

24. Sometimes my child does things that bother me just to be mean.

SA A NS D SD

25. My child seems to cry or fuss more than most children

SA A NS D SD

26. My child generally wakes up in a bad mood.

SA A NS D SD

27. I feel that my child is very moody and easily upset.

SA A NS D SD

28. My child does a few things that bother me a great deal.

SA A NS D SD

29. My child reacts very strongly when something happens that my child does not like.

SA A NS D SD

30. My child’s sleeping or eating schedules was much harder to establish than I expected.

SA A NS D SD

31. My child gets upset easily over the smallest thing.

SA A NS D SD

32. For the next statement, choose your response from the choices “1” to “5” below.
I have found that getting my child to do something or stop doing something is:

1. much harder than I expected
2. somewhat harder than I expected
3. about as hard as I expected
4. somewhat easier than I expected
5. much easier than I expected

1 2 3 4 5

33. For the next statement, choose your response from the choices “10+” to “1-3” below:
Think carefully and count the number of things which your child does that bothers you
For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines etc

10+ 8-8 6-7 4-5 1-3

34. There are some things my child does that really bother me a lot.

SA A NS D SD

35. My child turned out to be more of a problem than I expected.

SA A NS D SD

36. My child makes more demands on me than most children.

SA A NS D SD

THANK YOU FOR YOUR PARTICIPATION

Appendix C

Example of calculation of maternal dissonance

Step 1: All scores of 1 or 2 on the Idealistic scale only are recoded as 0

Step 2: The Idealistic items are then added up

Step 3: Realistic scale subtracted from the Idealistic Scale to gain a dissonance score.

Step 4: Any negative totals are recoded as 0, thus leaving a positive total or a zero.

A working example for negative dissonance:

Idealistic Scale:

Mothers should find being with their children a wonderful experience.	4	3	**2**	1	coded=0
Mothers should have a pleasant life, free of any hassles.	4	3	**2**	1	coded=0
Mothers are no good if their children do not behave well.	**4**	3	2	1	coded=4
I believe a mother should always be successful.	4	**3**	2	1	coded=3

Total Idealistic = 7

Realistic Scale:

I find being with my children a wonderful experience.	**4**	3	2	1
I have a pleasant life free from any hassles.	**4**	3	2	1
My child/ren do not always behave well.	4	**3**	2	1
I believe I am a successful mother.	4	3	2	**1**

Total realistic = 12

Calculation:
Idealistic – Realistic = Dissonance
7-12= -5
As the dissonance score is negative, it is recoded as 0.

A working example for positive dissonance:

Idealistic Scale:

Mothers should find being with their children a wonderful experience.	**4**	3	2	1 coded=4
Mothers should have a pleasant life, free of any hassles.	4	**3**	2	1 coded=3
Mothers are no good if their children do not behave well.	**4**	3	2	1 coded=4
I believe a mother should always be successful.	4	**3**	2	1 coded=3

Total Idealistic = 14

Realistic Scale:

I find being with my children a wonderful experience.	**4**	3	2	1
I have a pleasant life free from any hassles.	**4**	3	2	1
My child/ren do not always behave well.	4	**3**	2	1
I believe I am a successful mother.	4	3	2	**1**

Total realistic = 12

Calculation:
Idealistic – Realistic = Dissonance
14-12= 2
As the dissonance score is positive, it is coded as 2.

Appendix D
Advertisement posted for Study 1

University of Ballarat
Mothering Research
Invitation to Participate

Mothering is an often difficult and demanding job. The way mothers think about their role often affects how they feel and how they react toward their children. However, research into this important area is limited.

Mothers of children between the ages of birth and 10 years are being sought to participate in a research project entitled 'The role of dissonance in the experience of mothering'. Participation would entail the completion of five questionnaires taking approximately 45 minutes.

If you are interested in this research or would like more information

Please contact Vanessa on **0408494104**

Appendix E

Plain Language Statement for Study 2

UNIVERSITY OF BALLARAT

PLAIN LANGUAGE STATEMENT AND INFORMED CONSENT
PROJECT TITLE: THE ROLE OF DISSONANCE IN THE EXPERIENCE OF MOTHERING (STUDY 2)
RESEARCHERS:

Professor Rosalyn Shute **Ms Vanessa Wing-Quay**

My name is Vanessa Wing-Quay and I am studying for my Doctor of Psychology (Clinical) at the University of Ballarat, Mount Helen Campus. A research project is an important component of the course and I am undertaking mine under the supervision of Professor Rosalyn Shute, Director of Psychology at the University of Ballarat. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate.

The aim of the project is to evaluate a mothering program called Being a Mother. This program is aimed at lowering dissonance in mothers (dissonance being the ideal expectations we hold about mothering versus our actual functioning in the mothering role), as well as increasing maternal self-esteem (how well we believe we mother and how satisfied we feel in our mothering role). Both of these factors have been found to influence the experience of mothering, but to date there has been no evaluation of group programs designed to target these factors. Participation in this study will involve being allocated to either the one session program group or two session program group. The one session group will be held in the form of a single all-day workshop, while the two-session version will be in the form of two half-days, several weeks apart. Both groups will cover identical material. A reduced fee of $80 (less than half price) will be charged for this program. I believe the findings of this project will be useful in contributing to knowledge in this area, as well as providing participants with skills useful to their mothering role.

I am seeking mothers who perceive their mothering role as difficult. You have been invited to participate as you have expressed interest in advertisements for the workshop, or you have been referred to this workshop because of difficulties you are experiencing in your mothering role. The Being a Mother program is a group workshop, in which mothers are taught how to identify unhelpful thoughts about their mothering role and then replace them with more helpful ones. As well as teaching skills, participants will be asked to fill out questionnaires before and after the workshop, and then four weeks later. You are invited to view the questionnaires and discuss the program prior to deciding to participate. You are also free to end your participation at any time and any data collected will be destroyed.

The workshop will be facilitated by a trainer external to the University. This trainer (Betty Checuti) is a registered psychologist. As part of the program participants may be asked to share experiences of mothering, and this can be either comforting or distressing for some mothers. However, sharing of experience is voluntary, and issues of confidentiality will be discussed with all group members collectively prior to commencement of the workshop. Along with this responses to questionnaires require you to reflect upon your own experiences, beliefs and feelings. Although for most participants this will not be a distressing task there is a possibility, however slight, that participants may become upset or concerned about their responses. If you are unduly concerned about your response to any of the questionnaire items, or if you find participation in the project distressing, you are free to contact Professor Rosalyn Shute; she will discuss your concerns with you confidentially, and suggest appropriate follow up if necessary. Alternatively, you can contact Lifeline (a free telephone counselling service) on 13 1114.

Although findings of this research report may be published or presented at a conference, no findings will be published which will identify any individual participant. Anonymity is assured by our procedure, in which you are not asked to provide your name on any of your questionnaire response sheets, which will have a code number (kept separately from your name) to enable us to match up the questionnaires you have completed on different occasions. Please note, however, that any information that you provide can be disclosed if (1) it is to protect you or others from harm, (2) a court order is produced, or (3) you provide the researchers with written permission. Access to data is restricted to my Supervisor and to me. Coded data are securely stored for five years, as prescribed by University regulations, and then destroyed.

Participation in this research is entirely voluntary; however, we ask that you complete the consent form attached to this letter, although you may withdraw your consent at any time. You also have the right to have any unprocessed data withdrawn or destroyed providing it can be identified. If at anytime you have any questions (or would like to be informed of the overall research findings), please contact my supervisor through the information provided below.

Thank you for your time,

Professor Rosalyn Shute Ms Vanessa Wing-Quay

Any questions regarding this project can be directed to the Principal Researcher, *Professor Rosalyn Shute* of the School of Behavioural and Social Sciences and Humanities on telephone number 5327 9620. Should you (that is, the participant) have any concerns about the conduct of this research project, please contact the Executive Officer, Human Research Ethics Committee, Research & Graduates Studies Office, University of Ballarat, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765

Appendix F

Manual for alternative intervention group for Study 2.

Creating Happier Mothers
Alternative Intervention Group

Module 1:

Introduction and Welcome to Creating Happier Mothers

- Welcome. Discuss issues of confidentiality. Discuss group forum and responsibilities of group members. Non-judgemental listening. Explain role of non-judgmental listening. We won't listen well when our mind is already made up or when we have our own agenda. In the latter case, we are likely to be in a talk-wait-talk conversational mode where we are just waiting for the person to finish talking so we can make our point, versus a talk-listen-talk conversational mode. As with all things, some of us have a more natural talent at listening than others, but everyone can get better at it!! We all come from different backgrounds and are at different stages of mothering – need to really focus on respecting people's experiences even when they seem incredibly strange or odd to us. Squirming our faces or turning our noses up will not help this group to form. Accept other people's experiences as valid.
- Ice breakers (Bingo)
- What is it really like to be a mother???....Your view
    - Is it easier/harder?
    - Specific examples
    - What would you like to change?
- What did you think it would be like?? Why??
- Discuss beliefs about mothering and where they are derived from
    - Societal pressures
    - Familial pressure
    - Medical (i.e. to breastfeed)
    - How does this impact on your mothering NOW?
- Get participants to select one issue they would like to change, but do not know how.
    - Discuss individual coping styles
    - How have they tried to change their individual issue/s

BREAK

Module 2:
Structured Problem-Solving.

This section of the program is based on a manualized program developed for depression by the Sphere Group (www.spheregp.com.au).

What is Structured Problem-Solving?

At times our lives involve problems or stressful situations that overwhelm us. Structured problem-solving is a method designed to work through and examine life problems that are causing distress.

- Structured problem-solving aim to:
    - Help you recognise the difficulties that have contributed to you feeling overwhelmed and distressed;
    - Make you aware of the supports you have, your personal strengths and how you coped with similar problem in the past;
    - Teach you an approach to overcome or adjust to current difficulties;
    - Help you feel in control of the problems, rather than the other way around; and,
    - Help you deal more effectively with problems in the future.
    - When you are depressed and\or anxious, decision-making can be more difficult than usual.
    - Little problems feel like big problems, and the big problems can be completely overwhelming.
    - In other instances, your depression and anxiety may be related to an unresolved problem, such as a relationship or work issue.
    - The following structured problems solving guideline are a way to work through your problems and reach a decision.
    - It is important to accept that there is never a perfect solution. All you can do is pick the best solution that you can think of at the time.
    - Once you have put your decision into, often you will start to feel better.

- As a group select a problem as an example.

Defining the problem

1.

In order to begin looking at ways of overcoming the problems or difficulties, you need to re-state your problems/difficulties as a defined goal or need. This helps you to aim for. For example, “What will I do for a job” could be better expressed as a goal, “To decide upon an alternative to my old job”
My new goals or need are: “To…”

1.

Now select one of your goals or needs to work on and write it down on the next page.

It is often helpful to discuss your problems with someone you trust such as your partner, family or friends.

I need to discuss my problems with:

- Weighing up the Pros and Cons of each possible solution.

Now to try out the advantages and disadvantages of each possible solution.

It may help to get extra ideas from someone you can trust to give an opinion

Problem

Solution	Advantage	Rate	Disadvantages	Rate
1.				
2.				
3.				
4.				
5.				

- Review the problem-solving attempt
- Continue with your solution or decide upon a new one.

Plan how to put your solution into action

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

-
-
- Ask each participant to use a personal example and follow through with steps of Problem-Solving.

Appendix G
Manual for intervention group for Study 2.

Creating Happier Mothers
Intervention Group

Module 1:
Introduction and Welcome to Creating Happier Mothers

- Welcome. Discuss issues of confidentiality. Discuss group forum and responsibilities of group members. Non-judgemental listening
- Ice breakers (Bingo)
- What is it really like to be a mother???....Your view
    - Is it easier/harder?
    - Specific examples
    - What would you like to change?
- What did you think it would be like?? Why??
- Discuss beliefs about mothering and where they are derived from
    - Societal pressures
    - Familial pressure
    - Medical (i.e. to breastfeed)
    - How does this impact on your mothering NOW?
- Get participants to select one issue they would like to change, but do not know how.
    - Discuss individual coping styles
    - How have they tried to change their individual issue/s

BREAK

Module 2:
Structured Problem-Solving.

This section of the program is based on a manualized program developed for depression by the Sphere Group (www.spheregp.com.au).

What is Structured Problem-Solving?
At times our lives involve problems or stressful situations that overwhelm us. Structured problem-solving is a method designed to work through and examine life problems that are causing distress.

- Structured problem-solving aim to:
    - Help you recognise the difficulties that have contributed to you feeling overwhelmed and distressed;
    - Make you aware of the supports you have, your personal strengths and how you coped with similar problem in the past;
    - Teach you an approach to overcome or adjust to current difficulties;
    - Help you feel in control of the problems, rather than the other way around; and,
    - Help you deal more effectively with problems in the future.
    - When you are depressed and\or anxious, decision-making can be more difficult than usual.
    - Little problems feel like big problems, and the big problems can be completely overwhelming.
    - In other instances, your depression and anxiety may be related to an unresolved problem, such as a relationship or work issue. The following structured problems solving guideline are a way to work through your problems and reach a decision.
    - It is important to accept that there is never a perfect solution. All you can do is pick the best solution that you can think of at the time.
    - Once you have put your decision into, often you will start to feel better.

- As a group select a problem as an example.

Defining the problem

1.

In order to begin looking at ways of overcoming the problems or difficulties, you need to re-state your problems/difficulties as a defined goal or need. This help you to aim for. For example, “What will I do for a job” could be better expressed as a goal, “To decide upon an alternative to my old job”
My new goals or need are: “To…”

1.

Now select one of your goals or needs to work on and write it down on the next page.

It is often helpful to discuss your problems with someone you trust such as your partner, family or friends.

I need to discuss my problems with:

- **Weighing up the Pros and Cons of each possible solution.**

Now to try out the advantages and disadvantages of each possible solution.

It may help to get extra ideas from someone you can trust to give an opinion

Problem:

	Solution	Advantage	Rate	Disadvantages	Rate
1.					
2.					
3.					
4.					
5.					

- Review the problem-solving attempt

- Continue with your solution or decide upon a new one.

Plan how to put your solution into action

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

-
-
- Ask each participant to use a personal example and follow through with steps of Problem-Solving.
    -

Lunch

Module 3:
Introduction of REBT

- Revisit belief about mothering role.
- How do they make you feel?
- Introduce REBT and link between belief and emotion.
    - Discuss core beliefs as per Ellis. In particular:

        - " I must be thoroughly competent, adequate, achieving and lovable at all times or else I am an incompetent and worthless person" According to Ellis (2003) this leads to feelings of panic, anxiety, depression, despair and worthlessness

        - "Other significant people in my life must treat me kindly and fairly at all times or else I can't stand it. They are bad…..who should be blamed….for their horrible treatment of me". These type of core beliefs lead to anger and rage

- "Things and conditions absolutely must be the way I want them to be and must never be too difficult or frustrating…..life will be unbearable". This leads to low-frustration tolerance, self-pity, anger and avoidance.

- Discuss personal examples of participants.

Module 4:
Disputation

- Two alternatives for disputation
  - SUE (Sensible-Useful-Evidence)(Handout 1)
  - Question yourself/thinking (Handout 1)
- Discuss the use of a thoughts record. Have participants fill one out. Discuss as a group.

Module 5:
Overview

- Discuss REBT in an wholistic fashion.
- Use example of "teenager coming home late".
  - Feelings
  - Emotions
  - Disputation (alternative questions)
  - New emotion
- How helpful has this been to you? List of Rational thoughts given out.
- Assessment of any personal/outstanding need of individual/s

Close

Appendix H
Invitation to participate in study

Creating Happier Mothers

Creating Happier Mothers

20/6/06

Dear ,
Thank-you for filling in the Ideas of Parents Questionnaire. I would like to invite you to participate in our upcoming 'Creating Happier Mothers' group. The group will be a one-day/half day workshop, facilitated by myself, , Psychologist.

The group will be held at **154 Victoria Street, Hawthorn East VIC, 3123**

Ph: 9882 5345

On **July 20, 2006**

Beginning at **9.00am**

Finishing at **12.30/5.00**

If you cannot attend this session can you please ring Betty on the above phone number.

I look forward to meeting you at the workshop

Yours Sincerely

Psychologist

Appendix I
Copy of informed consent form

UNIVERSITY OF BALLARAT

INFORMED CONSENT
PROJECT TITLE:
THE ROLE OF DISSONANCE IN THE EXPERIENCE OF MOTHERING.
(STUDY 2)

RESEARCHERS:
Professor Rosalyn Shute **Ms Vanessa Wing-Quay**

Please complete the following:

I. . . . . of . . . . . .

. . . . . .
hereby consent to participate as a subject in the above research study.

The research program in which I am being asked to participate has been explained fully to me, verbally and in writing, and any matters on which I have sought information have been answered to my satisfaction.

I understand that: all information I provide (including questionnaires) will be treated with the strictest confidence and data will be stored separately from any listing that includes my name and address

- aggregated results will be used for research purposes and may be reported in scientific and academic journals
- I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information obtained from it will not be used.
- once information has been aggregated it is unable to be identified, and from this point it is not possible to withdraw consent to participate

SIGNATURE: . . . . . **DATE**: . . . . . .

Appendix J

Copy of letter to prompt return of follow-up questionnaires

Creating Happier Mothers

Creating Happier Mothers

20/11/06

Dear ,

Thank-you for participating in the 'Creating Happier Mothers' group that was run earlier this year. After this workshop, I sent you some questionnaires to be filled in, just as a follow-up. As yet I have not received these back from you. I have sent another set of these, and I am hoping that you can fill these in for me and return them to the address below, in the stamped self-addressed envelope.

I appreciate the time you will take to fill these in and I hope all is going well for you at this time. Should you need another further information or support, please do not hesitate to contact me on 9882 5345

Yours Sincerely

Psychologist