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A study of a group intervention for postnatal depression at a community health centre.

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A minor dissertation submitted in partial fulfilment of the requirements for the award of Masters of Social Science in Clinical Social Work

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Declaration

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature:

Date: 05 February 2010

Abstract

Untreated postnatal depression may have serious and long-lasting consequences for mother and infant. These range from feelings of inadequacy and worthlessness in the mother to social, emotional, cognitive and behavioural disturbances in her child. Postnatal depression is also associated with maternal and infant death. In South Africa, postnatal depression is not screened for as a matter of routine and many women go undiagnosed and untreated.

The research was conducted at a community health centre using a mixed methodology of quantitative and qualitative techniques. A sample of six women with postnatal depression participated in a group intervention programme for eight sessions. A single system design was used to quantitatively determine whether a change had occurred, and to what extent, in the mothers' depressive symptoms and attitude towards mothering at the conclusion of the group intervention. Baseline measures on the Edinburgh Postnatal Depression Scale and the Maternal Attitudes Questionnaire were compared with these scores measured at the conclusion of the intervention. A focus group was held at the conclusion of the intervention to gather qualitative data on the mothers' experience of the group processes and personal outcomes.

The results of this study demonstrate that mothers' moods and maternal attitudes improved as a result of this therapeutic group intervention, although they still remained above the diagnostic cut-off threshold for postnatal depression. The intervention was also noted by mothers to be a desirable method of treatment for postnatal depression. Further research is indicated to test whether the positive outcomes hold over a period of time.

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1. Introduction

The following chapter presents the problem and prevalence of postnatal depression as well as outlining the negative implications thereof. It proceeds to give a rationale for the undertaking of the research presented within this report followed by a statement of the research topic. The main questions to be examined are outlined, followed by the research objectives that informed them. Key concepts are defined, proceeded by a discussion of ethical considerations and the researcher's reflexivity concerning the subject matter and research process. Finally, the chapter concludes with an outline of the coming chapters presented within this dissertation.

1.1 Statement of the Problem

Whilst the birth of a baby is generally an event of jubilation and delight, what follows for many women is less celebratory. Many new mothers avoid speaking of the profound sadness and hopelessness that at times follows the arrival of a new infant out of shame and guilt for not matching up to the expectations engendered by the media and supported by women themselves.

Postnatal depression (PND) is a function impairing illness that afflicts many women in the months proceeding childbirth. Falling between the milder "baby blues" and the more severe, yet rare puerperal psychosis on the spectrum of maternal mental health disorders, postnatal depression has been found to have enduring consequences for both mother and infant if left untreated. Feelings of worthlessness, lack of pleasure, anxiety and guilt, disturbances in sleep and eating patterns, an inability to cope, alterations in psychomotor functioning, and thoughts of suicide characterize the day-to-day existence of a mother suffering from postnatal depression (O'Hara, 1997). These symptoms, whilst

distressing enough for the mother, have a knock-on effect for the infant. Cognitive deficits and social, emotional, and behavioural problems are more prevalent in children of mothers suffering from postnatal depression (Cooper and Murray, 1998) and they are also more likely to develop depression themselves at a later point in life (Hammed *et al.*, 2003, in Reay, Fisher, Robertson, Adams & Owen, 2006).

The family system and broader community are also placed at a disadvantage as productive contributions to both are impeded by PND. Older children and partners often suffer too, and unemployment, poverty, stigmatization, and marital separation and divorce have all been associated with the presence of depression (Weissman *et al.*, 1972, in Tam, Newton, Dern, & Parry, 2002; Boyce, 1994, in Buultjens, Robinson, & Liamputtong, 2008). Finally, perhaps most seriously, the presence of PND is associated with an increase in both maternal and infant morbidity. Suicide is the leading cause of maternal death, whilst infanticide is strongly correlated with PND, and infants of depressed mothers are more likely to die of sudden infant death syndrome (Oates, 2003, in Pinheiro, da Silva, Magalhães, Horta & Pinheiro, 2008; Kauppi, Kumpulainen, Vanamo, Merikanto and Karkola, 2008; Mitchell *et al.*, 1992, in Tam, *et al.*, 2002).

A common disorder, PND affects between 10-15% of mothers in developed countries (Cooper and Murray, 1998). However, research emanating from within South Africa established that the prevalence of PND amongst mothers in Khayelitsha, a peri-urban township, is over 34 % (Cooper, Tomlinson, Swartz, Woolgar, Murray and Molteno, 1999). Many mothers within the South African setting are parenting in already adverse conditions: high levels of HIV/AIDS, unemployment, escalating violence and crime, single parenthood and poor housing conditions. These factors coupled with the alarming prevalence rates and its deleterious effects suggest that PND is a serious public health

issue in South Africa. Effective interventions are needed in order to limit the negative consequences to mother, child, family and community.

1.2 Rationale and Significance

Group interventions are uniquely placed to access and treat more people in one setting than individual clinical work, thus making this a cost-effective method of treatment in our under-resourced country. A group format further offers a supportive environment that aids in the reduction of stigma and social isolation (Kruckman, 1992, in Griffiths & Barker-Collo, 2008). Members of a group are engaged in a process of mutual reflection, emotional exploration and learning that promotes both individual and social change (Yalom, 1995). Whilst recent years have seen an increasing amount of research focus on the efficacy of group treatment for PND in developed countries, South Africa, with its disproportionately high prevalence of PND, lacks research of this nature. The purpose of this study was to determine the feasibility and generate a sense as to whether a group intervention can be useful in improving maternal mood and attitudes of women living in a low socio-economic context in Cape Town.

A manualised, structured programme outline that has been utilised in a number of other international studies was adapted into a semi-structured programme (see Appendix I) and administered to a group of mothers and their babies in Rugby, an under-resourced and socio-economically disadvantaged suburb located within the broader Cape Town metropole. The community health care centre (CHC) is located in Rugby and is a district clinic for a broad geographical area that includes the township settlements of Joe Slovo and Du Noon, and the more established yet equally impoverished suburbs of Brooklyn and Phoenix. The area is under-resourced and lacks community services, whilst at the

same time being home to a culturally and racially diverse population. The CHC was identified as the research site as the area is in great need of interventionist services. There was buy-in from the nursing staff at the CHC who saw a need for social work intervention, acknowledged the benefits that such a research undertaking could yield for their facility and were willing to assist in the recruitment process. The facilities offered by the library adjoining the CHC further made this locale a logical choice. The relatively new and well equipped library offered a spacious hall, kitchen, and toilet facilities. Finally, having worked in the district the researcher was familiar with the area, population and resources.

1.3 Research Topic

A study of a group intervention for the treatment of postnatal depression at a community health centre.

1.4 Research Questions

1. Does a therapeutic group intervention reduce postnatal depression scores in mothers with postnatal depression as measured on the Edinburgh Postnatal Depression Scale?
2. Does a therapeutic group intervention appear to improve attitudes of mothers with postnatal depression towards mothering as measured on the Maternal Attitudes Questionnaire?
3. Is a therapeutic group intervention perceived by mothers suffering from postnatal depression as beneficial?

1.5 Research Objectives

1. To determine whether a therapeutic group intervention is effective in reducing postnatal depression in women suffering from postnatal depression.
2. To ascertain whether a therapeutic group intervention is useful in improving the maternal attitudes of women suffering from postnatal depression.
3. To evaluate whether mothers suffering from postnatal depression consider a therapeutic group intervention beneficial.

1.6 Clarification of Concepts

Postnatal depression is defined as a non-psychotic, depressive episode that begins within one year of childbirth. Symptoms of dysphoric mood; sleep, psychomotor and appetite disturbance; fatigue, excessive guilt; and suicidal thoughts must be present for at least 1 week resulting in an impairment of functioning (Cooper and Murray, 1997).

Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden, & Sagovsky, 1987) is a 10 item self-report, multiple choice questionnaire designed to determine the presence of postnatal depression in an individual. It does not assess those somatic depressive symptoms that may be the result of physiological changes normally associated with childbirth. It can be administered verbally and has been validated for use in many countries including South Africa (Hanusa, Hudson Scholle, Haskett, Spadaro, & Wisner, 2008).

Maternal Attitudes Questionnaire (MAQ) is a 14 item self-report measure designed to assess expectations of motherhood, expectations of self as mother and role conflicts. Presented as a series of statements about being a mother subjects are asked to answer

each item on a 4-point response scale from “strongly agree” to “strongly disagree”. It has been indicated that in order to gain a fuller understanding when measuring treatment outcomes a measure of change in maternal attitudes such as the MAQ should be utilised in conjunction with the measure of emotional symptoms such as the EPDS. The MAQ has demonstrated good test-retest reliability and shows a high correlation with scores on the EPDS (Warner, Appleby, Whitton, & Faragher, 1997; Griffiths, & Barker-Collo, 2008). Written consent to use the MAQ within this research was given by Prof. Appleby.

1.7 Ethical Considerations

1.7.1 Harm to Experimental Subject or Respondent

Of critical importance when conducting research of any nature is to ensure that harm, of both a physical or emotional nature, is not caused to the respondents or participants of the research (Strydom, 2002). Participants were informed of the process and purpose of the research, and that they were free to withdraw at any point during the course of the group intervention. Participants were also provided with a referral letter to a doctor indicating that they had attained a high score on the EPDS and that treatment with antidepressant medication might be required. It was the individual participant’s decision whether they wished to follow through with the referral. Participants were also encouraged to maintain regular appointments and check-ups at the baby clinic, and comply with the treatment advice of medical professionals.

1.7.2 Informed Consent

In order for research participants to make informed decisions they are entitled to all relevant information regarding the research process that may influence their decision. This, according to Strydom (2002), includes the goal, or overall purpose of the research,

how this will be achieved, possible advantages or disadvantages of participating, and the possible dangers that may arise as a result of participating in the research. Furthermore, participants and/or their legal guardians should be made aware of the researcher's credentials and commitment to ethical responsibilities. All of this information allows the participant to evaluate the situation and voluntarily decide whether they wish to partake. The aforementioned was discussed with each participant at the initial screening and participants were given the opportunity to ask questions and clarify any concerns that they may have had thus allowing them to make an informed decision as to whether they wished to proceed.

1.7.3 Deception of Subjects or Respondents

Loewenber and Dolgoff (1988, in Strydom, 2002) defines the deception of subjects as 'deliberately misrepresenting facts in order to make another person believe what is not true, violating the respect to which every person is entitled'. As in informed consent above, the respondent were fully informed as to the process, purpose and consequences of the study, so as to avoid any deception or misrepresentation of the facts. Further, participants were made aware that depression is treatable with medication and that this option is available to them.

1.7.4 Violation of Privacy/Anonymity/Confidentiality

Participants have the right to anonymity in order to protect their privacy and confidentiality. So as to ensure their anonymity and maintain confidentiality respondents are not referred to by name but rather as Respondent 1, Respondent 2, etc.

1.7.5 Action and Competence of Researcher

With previous experience in conducting research and as a practising social worker in the field of mental health, the researcher is both equipped and skilled in adhering to rigorous research procedure and dealing with mental health concerns such as PND. Further, training in the field of infant mental health gained in affiliation with the Tavistock Clinic in London adds to the researcher's ability to work with the unique mother-child client group. Supervision was provided by the Social Development Department, University of Cape Town.

1.7.6 Co-Operation with Collaborators/Contributors

Access to the CHC was negotiated with the district manager for the area. She agreed that research of this nature could be conducted within the district, provided:

- All identifying particulars of patients are kept confidential.
- Access to the clinic must be arranged with relevant managers such that normal activities are not disrupted.
- A copy of the final report must be sent to her office within three months of its completion and a feedback session with the clinic staff should also be held.

Funding received from Claremont Rotary was administered by Cape Mental Health, and groups conducted formed part of the organisation's service delivery plan. Feedback will be given both to the Claremont Rotary and the staff of the CHC.

1.7.7 Release or Publication of Findings

The findings of this research will be compiled into a final report. Relevant role-players at the CHC and the district manager for the area will be furnished with a copy and a presentation of findings will be given.

1.7.8 Debriefing of Respondents

The final consideration with regards to ethics concerns the debriefing of respondents in order to minimise harm that may have been incurred during the research process. All participants were offered a debriefing at the conclusion of the group intervention.

1.8 Reflexivity

The proceeding research is not a blind study, thus as author and researcher are one and the same, there exists a vested interest in the outcome of this undertaking. Whilst this may predispose one to assuming a biased perspective in the analysis of the findings, every endeavour will be made to avoid such a dilemma.

1.9 Conclusion

This chapter sought to introduce the reader to the topic of examination. An introduction to postnatal depression, its prevalence and the consequences associated with it were discussed and rationale for conducting research in this domain was presented. The research topic was outlined and the questions and objectives pertaining to it were set out. Pertinent concepts and terms were defined and issues of ethics discussed. The chapter concluded with an examination of the researcher's reflexivity.

The proceeding research paper will explore and discuss various aspects and findings of this particular research undertaking. It will commence with Chapter 2 which presents a

literature review exploring what current research and other literature is available on the subject of postnatal depression. Chapter 3 follows with an explanation of the methodology employed in the undertaking of this research, whilst Chapter 4, the data analysis, presents a profile of the group participants, results as measured on the EPDS and MAQ, framework of the analysis and a breakdown of the findings which covers various themes that emerged in the final group discussion. Finally, this paper will close with a chapter on conclusions and recommendations.

University Of Cape Town

2. Literature Review

2.1 Introduction

For women, the period immediately following child birth is widely recognized as one of increased vulnerability to mental illness. Indeed, Raphael-Leff (1991) cites research conducted in the US, and other replicated studies, that found an 18-fold increase of admissions to psychiatric hospitals in the first month postpartum compared to the entire 9 months of pregnancy. Postnatal depression (PND) falls between “baby blues”, the most common postnatal disturbance characterized by mild and transient symptoms of hypersensitivity and tearfulness, and the more severe, yet rare puerperal psychosis, on a spectrum of maternal mental disorders. Symptoms of PND include sleep, appetite and psychomotor disturbance, emotional lability, feelings of low self worth, anxiety and excessive guilt, anhedonia, fatigue, an inability to cope, despair, and suicidal ideation (O’Hara, 1997). The deleterious reach of PND extends beyond a mother’s symptomatology, exerting a negative impact on the mother-infant relationship and in turn on the emotional and cognitive development of the child (Cooper and Murray, 1998).

Many low and middle income countries (LAMIC’s) lack any policy, plan or budget to address mental health needs, including that of maternal mental health (Saxena, Thornicroft, Knapp, & Whiteford, 2007). With a floundering health care system that has seen numerous budget cuts over recent years resulting in a lack of resources and overburdened staff, it is not surprising that screening for PND has not been a priority in South Africa. However, research conducted by Cooper and colleagues (1999) in Khayelitsha (a peri-urban environment located on the outskirts of Cape Town) found a prevalence of 34.7% for PND at two months postpartum. Similarly, the Perinatal Mental Health Project

(PMHP) noted that 34% of the women they screened during pregnancy qualified for a referral for counseling, obtaining a score of 13 or higher on the Edinburgh Postnatal Depression Scale (EPDS) (Honikman, Field, Kafaar, Fawcus and Flisher, 2008). These prevalence rates are almost three times the rates of PND found in developed countries, although estimates vary between 10% and 15% (O'Hara, 1997).

The following literature review gives consideration to the various risk factors that may predispose a woman to postnatal depression, as well as the consequences of such a disorder on both mother and child. An exploration of the various modalities of intervention is undertaken with closer attention given to that of group psychotherapy. Finally, the validity of the EPDS as a screening tool is considered and thought is given as to why women suffering from PND are often not diagnosed as such.

2.2 Risk Factors

2.2.1 Biological Factors

Whilst it is common knowledge that there are alterations in a woman's hormone levels after giving birth, research (cited by O'Hara, 1997) into the roles that progesterone, oestrogen, cortisol, and prolactin may play have all yielded mixed results and Cooper and Murray (1998) report that there is no conclusive evidence that link any of these hormones to the development of PND. Research has however suggested that in a small percentage of women immunological changes induced by stress may result in altered thyroid functioning which may precipitate PND. Nonetheless, there appears to be insufficient evidence to conclude that the development of PND is due to biological factors.

2.2.2 Gynaecological and Obstetric Factors

Whilst a link between menstrual problems and PND has been propounded by investigators, research evidence has either found no association or the results have not been statistically significant (O'Hara, 1997). Complications during pregnancy and delivery have also been inconsistently associated with PND, with research now indicating that the increased emergence of PND due to obstetric stress may be mediated by the presence of a pre-existing history of depressive disorders (O'Hara, 1997, Cooper *et al*, 1998). According to research conducted in the 1980's and cited by O'Hara (1997) previous abortions or miscarriages also do not appear to increase the risk for the development of PND.

2.2.3 Psychosocial Factors

It would appear that those factors that are of a psychosocial nature play a strong role in the development of PND. Unemployment, the absence of spousal support, as well as social support from family and friends, a conflictual marital relationship, and a difficult relationship with the woman's own mother have all been found to increase the risk of PND (Cooper *et al.*, 1998, O'Hara, 1997). Recently, Ramchandani and colleagues (2009) found that the predominant risk factors associated with the development of PND in an urban South African cohort were societal threats, such as being witness to violent crime or having one's life seriously endangered, and problems with a partner. They noted, too, that the mothers' level of education, family stress, and pervasive unhappiness during the pregnancy were also strongly associated with the onset of depression postpartum. An earlier study, conducted in South Africa (Mills, Finchilescu, &

Lea, 1995) similarly found an association between the mother's emotional state during pregnancy and the onset of PND as well as greater marital discord, social isolation and "close, but tense and difficult" relationships with their own mothers.

Western cultures punt the joys of pregnancy and the importance of perfect mothering often perpetuated through the media. Mothers looking happy and well-rested are depicted holding cherub-like infants setting up a powerful yet unrealistic expectation for new mothers. Failing to meet these utopian ideals may lead a mother to conclude that she has failed in her maternal role, thus precipitating the onset of depression. (Milgrom, Martin and Negri, 1999).

Many non-Western traditional societies mark the rite of passage of child-bearing through various rituals and routines that provide structure and social support for new mothers. However, this is lacking in Western cultures which according to Cox (1996 in Milgrom *et al.*, 1999) may contribute to the increased prevalence of PND.

2.2.4 Cognitive Factors

It appears that certain personality traits and cognitive patterns play more than a limited role in predisposing a woman to the emergence of a depressive episode postpartum. However, evidence suggests that it is the interplay of these cognitive factors with other risk factors that mediates the emergence of PND, as the presence of these traits solely is not always a robust predictor (Milgrom *et al.*, 1999).

Hayworth *et al.*, (1980 in Milgrom *et al.*, 1999) concluded that women who have an external locus of control (wherein they believe that they have little or no control over the events in their lives) are more likely to rate highly for PND as opposed to women with an internal locus of control (who believe that they have a high degree of control over the events that happen in their lives). Attributional style has been implicated in the development of PND with varying results (O'Hara *et al.*, 1984; Cutrona, 1983, in Milgrom *et al.*, 1999). In addition to attributional style, cognitive distortions, such as catastrophising, and negative thought patterns have been implicated as significant predictors in the emergence of PND (Cutrona & Troutman, 1986; O'Hara *et al.*, 1982, in Milgrom *et al.*, 1999). Finally, Boyce (1994 in Milgrom *et al.*, 1999) indicated that personality differences such as interpersonal sensitivity may be either causal or consequent to PND.

2.2.5 Psychiatric History

A personal history of psychiatric disorders, particularly those that are affective in nature, have been consistently associated with the emergence of PND. Similarly, anxiety and neurotic tendencies have also been found to be linked with depressive symptomatology in the postpartum (Cutrona, 1983; Gotlib *et al.*, 1991; O'Hara *et al.*, 1984; O'Hara, *et al.*, 1991; Watson *et al.*, 1984; Whiffen, 1988, in O'Hara, 1997). A number of studies have shown that a family history of psychopathology also appears to be consistently associated with PND (Campbell *et al.*, 1992; O'Hara *et al.*, 1984; Watson *et al.*, 1984, in O'Hara, 1997) with research indicating that women suffering from PND are more likely to be the daughters of depressed mothers themselves. However, a meta-analysis of studies conducted in this area indicates that there is no or at least very little association

between PND and a family history of psychopathology (O'Hara & Swain, 1996, in O'Hara, 1997).

2.2.6 Infant Factors

Increasingly attention is being paid to characteristics attributable to the infant in the emergence of PND in women. This is a shift in research which traditionally sought to isolate maternal factors responsible for the development of PND (Murray, 2008). Infant irritability, wherein the infant is highly reactive to mild stimuli and is difficult to soothe, and poor motor control manifested by either hyperarousal or inertia in the infant, have both been implicated in the onset of PND in women who also score high for maternity blues. Whilst the presence of one of these factors appears to increase the chances of developing depression, the co-occurrence of these traits in the infant greatly increases the likelihood of the development of depression in the postpartum (Murray, Stanley, Hooper, King, & Fiori-Cowley, 1996 in Murray & Cooper, 2007).

2.2.7 Psychodynamic Factors

Psychodynamic theory, particularly that of Bion's (1963) containing of "early infantile anxieties", Winnicott's (1945; in Likierman, 2003) "unintegrated infant", and Fraiberg's (2008) "ghosts in the nursery", is useful in understanding a mother's emotional context and the possible emergence of postpartum depression. Bion and Winnicott's work suggest that a healthy introjection, through holding and containing, of her infant's painful emotions requires that a mother be sufficiently resilient to tolerate these projections in conjunction with her own anxieties. What Fraiberg refers to as "ghosts" - unbidden, transgenerational hauntings of a mother's own childhood (and that of previous

generations) - may be invoked in the mother resulting in her becoming overwhelmed and unable to tolerate her infant's projections. Struggling with her own internal objects and early primitive anxieties renders her vulnerable to her infant's projections and consequently her own past conflicts leading to depression (Likierman, 2003; Fraiberg, 2008).

2.3 Consequences

The deleterious effects of PND appear to have far reaching and varied consequences, ranging in impact from mother's feelings of worthlessness, inability to cope, and despair, to developmental consequences for her child. Family and community may also suffer as it hampers a woman's ability to contribute to both in a productive manner and produces members of society who consequently may also be impaired. PND is also associated with increased morbidity in both mother and infant.

Research over the years indicates that there is a definite correlation between PND in the mother and poorer cognitive outcomes in her child. A study conducted in Cambridge in the UK (Murray, 1992, in Hay, 1997) found that children of depressed mothers performed significantly less well on cognitive tasks (object permanence) than the infants of non-depressed mothers. Further studies examining the link between maternal depression and child cognition (Cogill, *et al.*, 1986, Sharpe *et al.*, 1995 in Hay, 1997) undertaken in London with socioeconomically disadvantaged populations also revealed that children, particularly boys, of depressed mothers showed consistent cognitive difficulties at age 4 and 5.

Raphael-Leff (1991) suggests that whilst a mother with maternal depression may be physically present, it may render her emotionally remote and unresponsive. Research findings show that infants exposed to disturbed and insensitive patterns of interaction related to depression such as intrusive and insensitive handling, disinterested and unresponsive engagement, and a diminished capacity to aid the infant in regulation of affect (Field, 1984; Field *et al.*, 1985; Cohn *et al.*, 1986; Field *et al.*, 1988; Field *et al.*, 1990, in Murray *et al.*, 1997) results in distress and disturbance in the infant (Cohn *et al.*, 1986; Field, *et al.*, 1990; Tronick *et al.*, 1997; in Murray *et al.*, 1997). It is this disturbance in the mother-infant interaction that affects the emergence of emotional difficulties in the child (Murray *et al.*, 1997; in Cooper *et al.*, 1998). Inadequate social adjustment in children have also been attributed to the presence of PND in the mother, with most studies exploring infant attachment in relation to PND yielding an elevated rate of insecure avoidant and anxious resistant attachment patterns (Murray *et al.*, 1996; Lyons-Ruth *et al.*, 1986; Teti *et al.*, 1995, in Cooper *et al.*, 1998; Belsky 1999, Murray, 1992, Smith & Pederson, 1988, in Cooper *et al.*, 1999). A follow-up of the Cambridge cohort at 5 years found that the children of depressed mothers were more likely than children of non-depressed mothers to be labelled by their teachers as presenting with behavioural problems suggesting a persistence in emotional dysregulation over time (Sinclair *et al.*, 1998, in Murray *et al.*, 1998). The offspring of depressed mothers are also at greater risk for the development of a depressive disorder themselves, even if their mothers' episode was relatively brief (Hammed *et al.*, 2003, in Reay *et al.*, 2006).

Research emanating from South Africa is in keeping with international findings. Tomlinson, Cooper, and Murray (2005) established in their research in Khayelitsha that in contrast to non-depressed mothers, mothers with PND were markedly less sensitive

to their infant's direct interactions and therefore their infants were less positively engaged with them. It is this misattunement that may lead to attachment difficulties.

Oates (2003, in Pinheiro *et al.*, 2008) notes that suicide is the leading cause of maternal death. Pinheiro and colleagues (2008) found in their research that there was a statistically significant prevalence of suicidality in the two postpartum samples that they assessed and that a previous history of suicidal behaviour and a diagnosis of depression in the postpartum is a robust predictor of suicidality. Kauppi and colleagues (2008) undertook a retrospective analysis of all the cases of filicide (the act of killing one's child) in a 25 year period in Finland where the children were less than 12 months in age. The researcher's findings revealed that whilst the perpetrators had wanted their children, they all clearly suffered from depression and the homicides had all occurred when the mother was left alone with her infant against her will. In South Africa, there does not appear to be any firm statistics on the prevalence of infanticide (the act of killing a newborn infant) and dumping of newborn babies however anecdotal evidence suggests that it is quite high. Further, as there does not appear to be any local research into this phenomenon, conclusions cannot be made as to why it occurs.

In a study conducted in New Zealand (Mitchell *et al.*, 1992, in Tam, Newton, Dern, & Parry, 2002) it was established that the infants of mothers suffering from depression are more likely to die from sudden infant death syndrome than infants whose mothers are not depressed.

It is evident from the preceding discussion that the consequences of PND are not just limited to the mother nor a brief period in time. If not treated PND has the capacity to

impede a mother's functioning, hamper the attachment process, impact on a child's social, emotional, cognitive and behavioural development and, at its worst, may lead to suicide or infanticide. Increased screening of PND is needed to catch it before these consequences come into effect.

2.4 Screening for Postnatal Depression

In order for the diagnosis of PND to be made a woman needs to be assessed by a psychiatrist to determine if she meets the diagnostic criteria. However, there are a number of different screening tools for determining the presence of PND in women, the most widely used being the EPDS, that can be easily administered by other healthcare professionals (Cooper & Murray, 1998). Other instruments that may assist in the diagnosis of PND include the Beck Depression Inventory (Beck, Steer & Brown, 1996 in Griffiths & Barker-Collo, 2008), the Postpartum Depression Screening Scale (Beck & Gable, 2002 in Griffiths & Barker-Collo, 2008) and the Beck Anxiety Inventory (Beck & Steer, 1993 in Griffiths & Barker-Collo, 2008).

Despite the many advantages of the EPDS and the ease with which it may be used, Cooper and Murray (1998) note that maternal depression is still under-diagnosed by primary health clinicians. Indeed Mills *et al.*, (1995) found a Cape Town sample of women who had consulted their paediatricians on a recurring basis, and who met criteria for PND, had not been diagnosed as such. Tam and colleagues (2002) encountered much resistance in their attempt to get paediatricians to screen for PND when attempting to isolate a site for their research. The doctors felt that their staff would not be able to handle a depressed woman, particularly one with suicidal thoughts. Similarly, the

paediatricians also felt that they themselves lacked the ability to talk to a crying, possibly suicidal woman and that to do so would be to open the flood gates. Further, the paediatricians felt hesitant to inform a new mother that her feelings of sadness and an inability to cope might be symptomatic of PND, as they feared driving their patients away by the insinuation that they are mentally ill. Paediatricians felt that enquiring about the mothers' feelings would make them feel uncomfortable and defensive, however quite the opposite has been suggested. Mothers are generally appreciative of the concern if such queries are done in the context of a supportive doctor-patient relationship.

2.5 Intervention

Whilst there is a dearth of research exploring the use of antidepressants in the treatment of PND, due in part to the reluctance of breastfeeding women to ingest a substance that is potentially harmful to their infants, a fair amount of studies have examined a variety of therapeutic interventions. Whilst certain of these studies sought to assess intervention in the reduction of PND symptoms in the mother, others considered an improvement in mother-infant interaction and child development the objective. Research into the efficacy of hormone therapy has also seen a resurgence despite the lack of evidence implicating hormones in the development of maternal depression.

2.5.1 Drug Treatment

The only controlled trial of antidepressant use for the treatment of PND involved both fluoxetine and cognitive-behavioural counseling. Whilst there was a significant improvement found for both drug and counseling (after 6 sessions), medication was not superior to counseling and combining the treatment of medication and counselling is no more effective than either one approach (Appleby *et al.*, 1997, in Cooper *et al.*, 1998).

Boath and Henshaw (2001) in their comprehensive literature review of all research conducted into the treatment of PND cite another small, uncontrolled study on the efficacy of fluoxetine. Roy and colleagues (1993, in Boath & Henshaw, 2001) found success in treating four women with fluoxetine, however the small sample and lack of a control group limit the generalisability of these findings. Another uncontrolled study (Stowe *et al.*, 1995, in Boath & Henshaw, 2001) treated 26 women with a diagnosis of PND with sertraline. While they found that 14 of the 21 women who completed the study recovered in full, numerous methodological problems confound the findings. Further, all the women were receiving supportive psychotherapy at the time of the trial thus it is impossible to determine whether the positive results were due to medication, therapy or both. Finally another drug trial treating “postpartum psychological distress” using S-adenosylmethionine also found improvements after 30 days, however the inclusion of women experiencing maternity blues, which is known to be transient and to remit spontaneously, limits the generalisability of the findings.

Whilst there is little evidence suggesting harm to the infant of mothers taking antidepressants for the treatment of PND, the long term implications of exposure to tainted breast milk are unclear. Additionally, since there is no conclusive evidence that medication is superior to psychotherapy caution should be exercised in the prescription of antidepressants.

Treatment of PND with progesterone has been advocated despite the fact that there is little research to substantiate its use (Cooper *et al.*, 1998). Studies into the efficacy of oestrogen treatment have yielded positive results, with the experimental group showing a significant improvement in their mood (Cooper *et al.*, 1998). Henderson and

colleagues (1991, in Boath & Henshaw, 2001) found great improvements in the EPDS scores of women with PND treated with progesterone. However a high drop out rate and the fact that a greater number of women in the active treatment group compared to the control group were taking antidepressants render the findings inconclusive.

2.5.2 Individual Counselling

A small controlled study conducted in Edinburgh (Livingstone *et al.*, 1989, in Boath & Henshaw, 2001) saw 26 women receive one hour non-directive counseling sessions in their home for 8 weeks. The women in the treatment group showed statistically significant improvements compared to those in the control group. However intervention efficacy cannot be fully concluded as a substantial number of women in the treatment group were on antidepressants during the period of study. A similar study conducted in Sweden (Wickberg *et al.*, 1996, in Boath & Henshaw, 2001) assessed the efficacy of non-directive counseling administered by trained child health nurses. After 6 weekly, one hour sessions the treatment group showed significant improvements compared to the control group, who had only received routine primary care (RPC). A third study employing Rogerian, non-directive counseling techniques was conducted in a three centre trial (Gerrard *et al.*, 1993, in Boath & Henshaw, 2001). The researchers concluded that training health visitors in detection, prevention and treatment of PND led to a highly significant alteration in EPDS scores. Whilst all three studies showed promising results, they also had some methodological problems in their designs.

In Cambridge, health visitors trained to use the EPDS to detect PND and the management thereof through simple counseling and cognitive behavioural therapy, visited women identified as depressed in their homes for hourly sessions once a week

for 8 weeks (Seeley *et al.*, 1996, in Boath & Henshaw, 2001). Results showed a significant reduction in EPDS scores for women in treatment compared with the control, as well as a decrease in mother infant relationship problems. In a follow-up study in Cambridge conducted by Cooper and Murray (1997) the efficacy of non-directive counseling, cognitive behavioural therapy, and dynamic psychotherapy was investigated. One hundred and ninety four women who met the criteria for major depressive disorder with postpartum onset were randomly assigned to one of these three interventions, which were administered in the women's own homes in one hour sessions over 10 weeks, or a control group receiving RPC. While there was little change in the control group the findings revealed that all three interventions were equally successful in alleviating depressive symptoms and mothers' self reports reflected a decrease in mother-infant relationship problems, whilst infant cognitive development and the quality of face-to-face contact remained unchanged. However, it was found that at 9 months postpartum the treatment benefits no longer held and that intervention did not reduce subsequent episodes of PND (Cooper *et al.*, 2003).

Interpersonal psychotherapy, a time structured intervention that seeks to address and alter disturbed interpersonal relationships or the expectations held regarding these relationships, was found in a pilot study by Stuart and O'Hara (1995, in Boath & Henshaw, 2001) to bring about positive change in 9 out of 12 women treated. O'Hara (2000) expanded upon this, randomly assigning 120 postnatally depressed women to either a wait list control or 12 weeks of interpersonal psychotherapy. The women in the intervention group showed significant improvement over those in the control group. However, generalisability is limited due to significant socio-demographic differences between the two groups.

The use of music, visual imagery, exercise, yoga, relaxation and massage therapy in the treatment of PND in adolescent mothers was examined by Field and colleagues (1996, in Boath & Henshaw, 2001). The women were randomized to either a relaxation therapy or massage therapy group. Women in both groups demonstrated lower levels of anxiety after their first and last sessions; however those in the massage group evidenced less anxiety and anxious behaviour and lower stress hormone levels than those in the relaxation group.

In a controlled study in Khayelitsha Cooper, Landman, Tomlinson, Molteno, Swartz and Murray (2002) sought to determine the efficacy of a mother - infant intervention delivered by community workers. The community workers, four women with no formal training in health care, were taught basic counseling skills as well as the specific mother-infant intervention. Thirty two mother-infant dyads received counseling and mother-infant intervention sessions lasting approximately an hour from before the birth of their child until 2 months post-partum at varying, yet specific intervals. Whilst there was no statistically significant antidepressant effect, mothers felt the intervention was helpful to their understanding and management of their infant. The mothers in the intervention group were also noted to be more sensitive and affectionate towards their infant than those in the control group. The lack of improvement in maternal mood was thought to be unsurprising given the small sample size and the overwhelming social factors facing mothers living in an informal settlement.

2.5.3 Group Intervention

Group intervention has a number of unique characteristics not common to an individual approach. Yalom (1995) explains that the shared emotional experience and the interpersonal reflection upon that experience is sufficient to bring about change within the group setting. Further, the group approach allows for the development of a supportive network, a reduction in isolation and stigma, and the cost effective benefit of treating more people at once. Coping strategies, and communication and interpersonal skills are modeled and practiced within an accepting environment, and according to Kruckman (1992, in Griffiths & Barker-Collo, 2008) “a group format also assists in supporting the new social role of the mother and pays attention to the social structures around motherhood”.

In a pilot study in New Zealand conducted by Griffiths and Barker-Collo (2008) they administered a group intervention based on that outlined in Milgrom and colleagues (1999). The programme consisted of eight 120 minutes sessions held twice weekly in a closed CBT group with the aim of improving both mood and attitudes towards mothering. The goals of the group included identifying factors that contribute to maternal mental health issues, increasing understanding of PND and anxiety, helping participants recognize and change unhelpful cognitive patterns, teaching relaxation and stress management techniques, improving couple communication, increasing coping skills, preventing relapse, and developing community support networks. Three measures, the EPDS, the Beck Anxiety Inventory (BAI) and the Maternal Attitudes Questionnaire (MAQ) were administered, prior to the commencement of group sessions and at the conclusion of intervention. It has been suggested that measuring maternal attitudes in conjunction with measures of mood results in a greater understanding of treatment outcomes. Examination of the mean changes of scores post intervention on the EPDS,

BAI and MAQ showed a statistically significant decrease in anxiety and depressive symptomatology, and improved maternal attitudes. However, the lack of a control group limits the generalisability of these findings and it is unclear whether the effects were maintained over time.

Honey, Bennett and Morgan (2002) carried out a brief psycho-educational group intervention aimed at assessing its efficacy in alleviating maternal depressive symptoms. Their intervention, a three part structured programme covering education, cognitive behavioural techniques and relaxation training, was administered over 8 weeks in a series of 2 hourly sessions facilitated by two female Health Visitors. The findings revealed that a brief intervention of this nature is effective in reducing EPDS scores, compared to RPC, and held for 6 months after the termination of intervention. Some women, however, did continue to exhibit symptoms of depression 6 months later.

In a similar vein, a recent pilot study (Buultjens, Robison, & Liamputtong, 2008) evaluated what the authors termed a “holistic” programme for women with PND. The intervention consisted of three components: (1) education – teaching mothers about developmental milestones, social and learning activities, and how to initiate and promote play; (2) circuit of activities – guided, interactive stimulus for mother and infant; (3) creativity - a therapeutic activity for mother, intended for baby’s nursery. The findings revealed that the intervention aided in creating a bond between a mother and her infant, whilst also facilitating mother’s recovery from PND. However, as the research was not a controlled, randomized study, generalisability of the findings are limited.

Another pilot study conducted by Reay and colleagues (2006) sought to evaluate interpersonal psychotherapy as an intervention for the treatment of PND. Eighteen

postnatally depressed mothers received two individual sessions and 8 group sessions, whilst a 2 hour psycho-educational session was held for partners. Depressions scores showed a marked and statistically significant decrease after the conclusion of the intervention and results were maintained at a three month evaluation. However, 67% of the women were receiving concurrent antidepressant therapy during intervention, and a lack of a control group means the efficacy of the intervention cannot be separated out from that of the drug, or a combined effect. Other findings revealed improvements in marital relationships, but not necessarily in extended family relationships.

A controlled pilot study conducted by Meager and Milgrom (1996) compared 10 women in a cognitive behavioural group intervention with educational and social support components, with 10 wait-list controls. The findings revealed that the women in the intervention group showed a significant reduction in depressive symptoms compared to the controls. Boath and Henshaw (2001) observe that there were some methodological complications within this study that limit the generalisability and replicability of the findings.

Drawing on the programme designed by Milgrom and colleagues (1999), Craig, Judd and Hodgins (2005) adapted it for implementation and evaluation as a pilot study in a rural setting in Victoria, Australia. The 9 week programme, focusing on cognitive behavioural techniques, yielded positive results in the reduction of anxiety and depressive symptoms associated with maternal depression. The programme had a relapse prevention component which may have been successful in maintaining the reduction of EPDS scores at 6 weeks and 3 months post intervention.

The randomized, controlled evaluation of three manualized psychological interventions by Milgrom and colleagues (2005) assessed CBT group intervention (Milgrom, Martin, & Negri, 1999), and group and individual counseling. All three interventions proved to be significantly more effective than RPC in the reduction of depressive and anxiety symptoms, with no difference between the CBT and counseling interventions.

A controlled, randomized study conducted in Canada (Fleming *et al.*, 1992, in Boath & Henshaw, 2001) sought to evaluate the impact of social support groups on the mood, attitude and behaviour of maternally depressed women. The women in the intervention group meet weekly for 8 weeks for unstructured sessions aimed at sharing experiences and problems, facilitated by two psychologists. A second group saw women assigned to a "group by mail" to ascertain whether effects on women's attitudes was due to social interaction experienced in a group setting or objective reception of information imparted. Finally, a third group received no intervention at all. Findings indicate that the mothers in both the intervention groups improved over time; however the members of the active support group showed a greater tendency towards maintaining proximity to their infants, and their infants cried less at 5 months than at 6 weeks, unlike the infants of the mothers in the other groups.

Using a psychologist, a GP, an occupational therapist, and a community nurse, Morris (1987, in Boath & Henshaw, 2001) carried a small, uncontrolled case study of 7 women who had suffered from PND in excess of a year. Therapy involved intensive group sessions of one and a half hours weekly for 11 months. Depressive scores dropped

significantly between pre- and post-intervention and an improvement in personal constructs were also noted as desirable outcomes. Methodological limitations limit the replicability and generalisability of this study.

In a Canadian study assessing the impact of social support, Misri and colleagues (2000, in Boath & Henshaw, 2001) randomly assigned women to one of two treatment groups. The control group offered the same psycho-educational intervention that the social support group received however the latter included the mothers' partners in 4 of the group treatment sessions. Differences in a number of areas emerged between the two groups: those in the social support showed fewer depressive symptoms and an improvement in their assessment scores; with partners rating their relationships more favourably than the control group. By the final group session the general health of the partners in the support group had improved, whereas that of the control group had deteriorated.

A group for mother with "postnatal distress" was run by Morgan and colleagues (1997, in Boath & Henshaw, 2001) meeting for 2 hours each week for 8 weeks, with partners attending a joint session in week 6. Assessment at the conclusion of intervention revealed a decline in EPDS scores, whilst qualitative evaluation speaks to the potential usefulness of such an intervention.

Boath and Henshaw (2001) cite a number of community-based support interventions that have shown to be effective. Gordon and colleagues (1995, in Boath & Henshaw, 2001) focused on stress management, common childhood ailments and dealing with

GP's; May (1995, in Boath & Henshaw, 2001) taught relaxation techniques alongside holding exercise classes; Jones and colleagues (1995, in Boath & Henshaw, 2001) described a community programme which saw co-operation between health visitors and community members to bolster local mental health services; and Foyster (1995, in Boath & Henshaw, 2001) reports on small, time-limited groups where members share experiences and advice in a safe, non-judgmental environment. None of the preceding interventions were designed for research purposes and thus the findings cannot be readily replicated and generalisability is limited, however quantitative and qualitative data collection does attest to the possible usefulness of such treatment groups.

Although not all methodologically rigorous, all of the group interventions discussed yielded positive results in reducing EPDS scores.

2.5.4 Treatment Addressing the Mother-Infant Relationship and/or Child Cognitive Outcomes

A controlled trial of treatment, cited by Cooper and Murray (1998), found that psychological intervention led to a significant improvement in maternal reports of infant problems both immediately following the conclusion of intervention, at 4 to 5 months postpartum, and 18 months postpartum. However, it is not just remission of maternal depressive features that they sought to evaluate but the quality of the mother-infant relationship and infant attachment. Significant positive results were found in these domains too, with a reduction in insecure infant attachment at 18 months as well as fewer maternal reports of infant problems.

Whilst Cooper and Murray (1998) note that there is a paucity of research evaluating the impact of PND treatment on the quality of the mother-infant relationship and child development, a more recent literature review conducted by Poobalan and colleagues (2007) provide a comprehensive review of what has emerged in recent years.

An assessment on the efficacy of toddler-parent psychotherapy (Cicchetti *et al*, 2000, in Poobalan, Aucott, Ross, Smith, Helms & Williams, 2007) compared 43 depressed mother-infant dyads receiving psychotherapy with 54 depressed dyads not receiving the intervention, and 61 non-depressed pairs receiving no intervention. Sessions were held weekly for over a year. Findings revealed that while the infants in the intervention group had IQ scores on par with those in the non-depressed control, the untreated depressed control infants had significantly lower IQ scores than the other two groups. Further, tests administered post-intervention revealed infants in the non-depressed control and intervention group to be more developed than those in the depressed control group.

Three types of psychological intervention – non-directive supportive counseling, cognitive behavioural therapy, and brief psychodynamic therapy – were compared with RPC in order to evaluate their efficacy (Murray *et al.*, 2003, in Poobalan, *et al*, 2007). Measurements on the mother-child relationship continued to be assessed up to 5 years of age. The findings revealed that the quality of the mother-infant relationship showed significant improvement across all intervention groups; however no effect was gained in behavioural management problems. Ultimately, all three active treatment groups showed significant differences when compared with RPC, although infant attachment scores and child development scores remained on par across the four groups. After 5 years, behavioural and emotional difficulties did not reveal any significant treatment benefits.

A short-term intervention comparing a mother-infant therapy group with interpersonal psychotherapy and a wait-list control (Clark *et al.*, 2003, in Poobalan *et al.*, 2007) sought to examine the effects on the mother-infant relationship and cognitive development of the infant. Behavioural aspects and long term outcomes were not assessed. Post-intervention analysis revealed an improvement for both treatment groups, with an increase in positive maternal affective involvement and verbalization, but no significant difference between the two. However, the mother-infant therapy group was superior in reducing maternal negative affect and behaviour with a greater statistically significant difference from the control group than interpersonal psychotherapy.

In the literature review conducted by Poobalan and colleagues (2007) they include 5 studies that examined impact on the mother-infant relationship only. These studies had interventions ranging from a PND support group to interpersonal psychotherapy.

Two of the studies excluded infants as participants and had just the mothers in attendance (Meager & Milgrom, 1996; O'Hara *et al.*, 2000, in Poobalan *et al.*, 2007). The Meager study yielded only small changes between the treatment and control groups which both had very small sample sizes. The O'Hara *et al.* study (2000) determined the effects of ITP with results showing more positive results for ITP over the control group. However, while this was a larger study it only took place over two weeks.

In a combined mother-infant intervention Horowitz and colleagues (2001, in Poobalan *et al.*, 2007) examined the efficacy of "interactive coaching" on the mother-infant

relationship. The treatment group showed a significant difference over the control group over time with an increase in responsiveness maintained at 18 weeks.

A study comparing infant massage with a support group was reported on by Onazawa and colleagues (2001, in Poobalan *et al.*, 2007) and Glover and colleagues (2002, in Poobalan *et al.*, 2007). Both studies reported that mother-infant interaction improved in the massage group compared with the support group.

Hart and colleagues (1998, in Poobalan *et al.*, 2007) designed and implemented an intervention aimed at training depressed mothers to examine their infants. Although mothers' perceptions of infants' behaviour did not differ between the active and control groups, social interaction and state organization were enhanced in the children.

Likierman (2003, p30) describes a case study of psychodynamic parent-infant psychotherapy which she considers a unique intervention as it utilizes the countertransference of parents and infants together. She asserts that such an intervention is useful in that it has the ability to delve beyond that which is superficial, "beyond everyday awareness and cognition", to access those primitive states that underscore the family dynamics. The psychodynamic therapeutic approach enables the therapist to offer containment to the family, holding the primitive anxieties elicited through childbirth and caring for an infant. Whilst the case presented by Likierman (2003) was not designed for research purposes and was thus not methodically rigorous, it does nonetheless highlight the benefits of such an approach in the treatment of PND.

All six of these interventions examining the impact on the mother-infant relationship, whether they were implemented with mother and infant together or mothers alone, showed an improvement in interaction and relationship.

Boath and Henshaw (2001) note that while all of the psychological interventions that they assessed in their literature review proved to be superior to RPC, they remain undecided on which intervention is superior overall. Whilst Milgrom *et al.*, (1999) favour group interventions as they allow for an increase in social support and normalizing, they also assert that individual psycho-therapeutic interventions yield more positive results than other methods of counseling (Milgrom *et al.*, 2005). Reay *et al* (2006), however cautions that an Axis II personality disorder is a confounding factor that is known to result in poorer therapeutic outcomes regardless of the method of intervention.

What prompts a woman with PND to take up the offer of counseling? This is another consideration not explored in any of the aforementioned research, but is of vital importance to intervention. The PNMHP (Honikman *et al.*, 2008) found in their work that women with PND were more likely to take up the offer of counseling if other practical support is lacking.

2.6 Conclusion

While it appears that there are multiple factors involved in the development of PND in women, research also suggests that it is highly amenable to therapeutic interventions. The preceding literature review sought to highlight not only what predisposes a woman to PND, but also the consequences for her and her child, and how these effects may be

ameliorated through various interventions. Attention was given to various group interventions which indicated that a group intervention is effective in reducing PND.

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3. Methodology

3.1 Introduction

The following chapter examines the various factors involved in the methodological process of this research project. The research design is outlined followed by a discussion of sampling and the challenges thereof. Methods of analysis of both qualitative and quantitative data are outlined and means of data collection are explored with some of the hindrances inherent in this process explored under limitations.

3.2 Research Design

In order to gather the relevant information needed to meet the research objectives, a combination of quantitative and qualitative approaches was employed. This mixed methodology design method encompasses aspects of the qualitative and quantitative paradigms, drawing on the advantages of both (de Vos, 2005).

The **quantitative paradigm** employs an objective and deductive stance in its quest to predict and control human behaviour. Research undertaken from a quantitative stance seeks to test a hypothesis comprising of variables that may be statistically measured and analysed in order to determine the validity of the predictive premise (Fouché & Delpont, 2005).

A single system design was used in order to quantitatively determine whether a change had occurred, and to what extent, in the mothers with PND after they attended an intervention group programme for eight sessions. The A-B-A design, allows the researcher to determine whether the intervention has been effective (Strydom, 2005). Thus the research employs a case study linked to a single-system design wherein a

baseline (A) is measured (through the Edinburgh Postnatal Depression Scale and the Maternal Attitudes Questionnaire) intervention (B) is conducted by means of a therapeutic group, following which a second baseline (A) is taken. A change in scores between the first baseline measurement and that taken post-intervention suggests that the therapeutic group intervention had an effect on the mothers' mood and attitudes.

The EPDS (see Appendix II) is a self-report scale that may be easily administered by healthcare workers, and does not require any knowledge of psychiatry. The scale is made up of 10 multiple choice questions with the severity of symptoms experienced in the preceding 7 days rated between 0 and 3. It is designed in such a way that it does not assess those somatic depressive symptoms which may be the result of physiological changes normally associated with childbirth and has been translated into 23 languages (Hanusa, Hudson Scholle, Haskett, Spadaro, & Wisner, 2008) and used in a number of countries outside of the UK including the USA, Australia, New Zealand, Iceland, Sweden, and the Netherlands (Lawrie, Hofmeyer, de Jager, & Berk, 1998). The EPDS is advantageous in that it can be used in various socioeconomic settings and with a variety of ethnic groups, and is free to investigators, and may even be administered via the telephone (Hanusa *et al.*, 2008). Lawrie, Hofmeyer, de Jager, and Berk (1998), were the first to validate the EPDS for use in an African setting, evaluating it in an urban environment in Johannesburg. They found, after making some minor changes to the wording for ease of understanding, that a threshold of 11/12 was effective in diagnosing 100% of women suffering from major depression and 70,6% of women with minor depression, consistent with other research and thus validating the EPDS as a local screening tool that can be administered verbally. A recommendation made by Lawrie and colleagues (1998) is that statements should be translated if the respondents'

English is poor. In their research Hanusa and colleagues (2008) did not find that using more than one screening tool increased the accuracy in diagnosing PND.

The MAQ (see Appendix III) is a 14 item self-report measure designed to assess expectations of motherhood, expectations of self as mother and role conflicts. Presented as a series of statements about being a mother, subjects are asked to answer each item on a 4-point response scale from “strongly agree” to “strongly disagree”. It has been indicated that in order to gain a fuller understanding when measuring treatment outcomes a measure of change in maternal attitudes such as the MAQ should be utilised in conjunction with the measure of emotional symptoms such as the EPDS (Griffiths & Barker-Collo, 2008). The MAQ has demonstrated good test-retest reliability and shows a high correlation with scores on the EPDS (Warner, Appleby, Whitton, & Faragher, 1997; Griffiths, & Barker-Collo, 2008). Written consent to use the MAQ within this research was given by Prof. Appleby.

Qualitative research underpinned by observation, interviewing and documentary analysis, is focused on the substance of findings. A qualitative approach seeks, through the use of inductive reasoning, to understand the meaning of the experience that is under examination as opposed to explain it (Fouché & Delport, 2005). Focus groups, as used at the conclusion of the intervention, are used to collect data and obtain perceptions of respondents on a predetermined topic (Morgan, 1997, in Greef, 2005; Krueger, in Greef, 2005). A semi-structured interview schedule (Appendix IV) was used to guide the focus group in order to gather pertinent opinions on the group process and outcomes.

The **group intervention programme** implemented in this research study was adapted from a format, the Getting Ahead of Postnatal Depression Group Programme, developed in Australia by Milgrom, Martin and Negri (1999) and utilised in a number of international studies, in adapted variations, with promising results (Griffiths & Barker-Collo, 2008). The changes made to the programme took into account the socio-economic circumstances of the women in the Rugby – Du Noon area which differed quite substantially from women who participated in this programme in other foreign settings. Differences included a lower level of education, a higher proportion of single mothers with little recourse to other support, lower income levels, and inadequate housing. Consequently aspects of the programme were dropped or modified to accommodate the different needs of the mothers.

For instance, where the Getting Ahead of Depression Group Programme encouraged mothers make childcare arrangements for the duration of each group session, an understanding that this would be neither financially viable nor considered appropriate by the mothers in the research group meant that they were encouraged to bring their infants to each session. Provisions were made within the group in the form of soft blankets and toys and a changing facility was available. As the sessions included the infants, adherence to the programme was not rigid. Those instances where infants became fussy were used as an opportunity to model and reflect soothing behaviour and appropriate engaging techniques.

The homework component of the original programme was excluded as it was felt that many mothers lacked both the educational requirements and the time (as single mothers) to fully engage with what was expected of them. Mothers taxi fare to and from the group was paid and a light meal was provided at each session.

The first session opened with an introduction both to the purpose of the group and the process. The group leader introduced herself and her objectives whilst participants were given the task of chatting to another mother and then introducing her and her infant to the group. General expectations regarding group attendance was conveyed and basic housekeeping issues (such as taxi fare, and changing facilities) were discussed. This was followed by a discussion of what postnatal depression is, including causes and symptoms. Following this, a discussion was held where mothers were able to share their experiences of giving birth. The session closed with a brief overview of the following session.

The second session was a semi-structured group discussion where the facilitator asked open ended-questions regarding the birth, breast-feeding, the impact the arrival of an infant has had on their lives, sleeping habits, etc. Positive feelings were reinforced, while mothers were encouraged to share their negative feelings with their group partners and in group. Links were drawn between mothers who shared similar experiences or emotions. The discussion was aimed at developing supportive connections, promoting positive coping strategies and attachment behaviours and addressing unhelpful cognitions and behaviours.

Cognitive behavioural therapy techniques were taught to the mothers in the third session allowing them to address negative thought patterns, intrusive thoughts and cope with stress circumstances. Mothers (with their babies) participated in a relaxation exercise that employed elements of Jacobson's Progressive Deep Muscle Relaxation (Milgrom, 1999). This was followed by a discussion on coping with stress – mothers were taught,

and generated their own ideas, on how to cope with the stress of caring for a young infant whilst managing other challenging aspects of their lives.

The fourth session was deliberately orientated towards the infants. Mothers were taught and asked to share their views on the importance of play with infants for learning and bonding. Various age appropriate games – such as pee-bo – were taught to mothers that they might implement at home. Mothers were then taught how to massage their infants and the importance of touch and eye contact.

The fifth session saw a combination of two sessions from the original programme. The mothers' families of origin were discussed: what was good, what was bad, what would they do differently or the same, and how we carry certain memories from our own childhood into our relationships with our children. This was followed by a group discussion on unhelpful thoughts and unrealistic expectations, and how to challenge these.

Assertiveness training through the examination of passive, aggressive and assertive communication patterns was addressed in the sixth session. Mothers were given the opportunity to role play different scenarios and practice the different aspects of assertive communication. A hand out was provided for future reference. The group then received psycho-education talk on self-esteem which was concluded with an activity where they were required to write a love letter to themselves for future reference.

In the seventh session the focus returned specifically to the infants. Mothers were asked to reintroduce their infants describing their positive attributes. Negative descriptions were either gently challenged or reframed. Interaction and communication skills were taught to

mothers so that they may engage with their infants in a more productive and meaningful manner. This was followed by an activity where mothers were required to have a “conversation” with their infants. A discussion followed about the meaning of mother and baby’s body language, eye contact, facial expressions and vocalisations.

In the final group session members reflected on each session that had come before. Issues of termination and moving on after the group were discussed and anxieties explored. The therapeutic group intervention concluded with a focus group that to elicit participants’ perceptions of the group experience. Questions probing what participants enjoyed or disliked about the group, what they found helpful or unhelpful, and whether they perceived a change in patterns of relating to their infant and other family members explored the participants’ subjective experience of the group. This also facilitated the evaluation of the intervention and aids in future planning and implementation of such an intervention. Finally, each mother met individually with the group facilitator where the EPDS and MAQ were re-administered.

3.3 Sampling

According to Keringer (1986, in Strydom & Venter, 2005), sampling involves using a cross-section of any given population that stands as a representation for the population as a whole. Because it is not feasible to study an entire population the use of samples allows researchers to gain an understanding of the broader population (Strydom & Venter, 2005). A non-probability sampling approach is utilised in the qualitative paradigm, wherein the sample population is actively sought out by the researcher selecting from individuals and groups where the specific criteria being investigated are most likely to occur. The method of target sampling is described by Biernacki (1989, in

Strydom & Venter, 2005) as “a purposeful, systematic method by which controlled lists of specified populations within geographical districts are developed and detailed plans are designed to recruit adequate numbers of cases within each of the targets.”

Where one would normally select a sample from a defined population, in this instance the population had not yet been identified. Screening for PND was not taking place at the CHC and nurses were unfamiliar with the symptoms and assessment process. In order to determine the population the researcher had to appeal for volunteers who felt they might fit the criteria and have the nurses refer women who presented with a depressed mood.

The original method of recruitment involved distributing fliers that outlined the symptoms of PND and requested interested participants (those that felt they may be suffering from PND) to send a “please-call-me” (a free message requesting the recipient telephone the person who sent the message) or an SMS to a listed cell phone number, held by the researcher. The fliers were distributed at the CHC where posters containing the same information were placed on the walls of the waiting area of the clinic. Unfortunately, this method of sampling yielded a very poor response rate (only one respondent spoke to the clinic sister about participating).

Co-operation was therefore secured from both the psychiatric nurse and a baby nurse at the clinic who both agreed to refer any potential participants. The baby nurse referred mothers who expressed feelings of sadness and an inability to cope and showed a willingness to participate in the group. This method increased the numbers of women referred for screening, however the referral rate was slow and the process ran into difficulties when the baby nurse went on leave. Ultimately the most successful method of

recruitment involved the researcher attending the clinic on a regular basis and actively screening women who volunteered.

Each woman was met on an individual basis at the CHC where demographic information was collected, and the EPDS and the MAQ were administered. Those individuals' who scored 12 or above on the EPDS (for the purposes of this study a score of 12 or greater on the EPDS is considered to be confirmation of the presence of PND) were asked to participate in the research. Over a period of two months eleven women were screened and of that eleven, ten women yielded EPDS scores above the cut-off threshold of 12. Two women were excluded from the research project as one had a comorbid diagnosis of borderline personality disorder, whilst the other woman was due to move out of the area prior to the commencement of the group. One woman dropped out after one session whilst another mother failed to attend any sessions. The sample consisted of more than 60% of the population identified.

The difficulty in sampling for this project is not surprising given that there is a lack of routine screening for PND in clinical settings. Despite having the support of the nursing sister, a lack of understanding and familiarity with the illness and its symptoms may have hampered the process. Appleby and Whitton (1993), in a letter to the British Journal of Psychiatry, state that it is indeed difficult to recruit a sufficient or representative subject sample in part because women who do suffer from PND are not in contact with doctors or psychiatrists who might refer them.

3.4 Data Collection

The EPDS and the MAQ were administered verbally prior to the commencement of intervention and again at the conclusion of the final group session. Evaluation of the group was discussed in the final session. A semi-structured interview schedule (see Appendix IV) was used to determine whether participants felt they had changed as a result of the intervention. It was further used to explore what participants found helpful or unhelpful about the group intervention, recommended changes, what they enjoyed the most or least and exploring the perceptions of their relationships with their babies and other family members. The discussion was captured on a digital recorder for transcription and analysis.

3.5 Data Analysis

The mean scores for both the EPDS and the MAQ prior to, and at the culmination of, the group intervention were calculated. A contrast between the pre- and post-intervention scores was undertaken utilising the Wilcoxon Signed Rank test to determine whether the difference is statistically significant.

The concluding group discussion was transcribed and manually analysed, using Tesch's principles (1990, in De Vos, 2005).

1. The transcribed interview was opened up as a Word document and read through.
2. The transcription was looked at in more depth and possible themes and categories were created, linking to the objectives of the research. Each theme was opened as a separate Word document.

3. Pertinent quotes made by the respondents were copied and pasted into the relevant Word document theme or category.
4. A list was made of all the main themes and categories in the transcription.
5. The themes and categories were then refined to prevent repetition.
6. A framework was developed according to the refined themes and categories.
7. Quotes were inserted into the framework.
8. The data was then linked to other research findings in the literature review. The researcher's own critical observations on the matter were added at this point.

3.6 Limitations

The lack of control group is perhaps the greatest limitation of this undertaking as it is not possible to determine whether an improvement is solely due to the intervention and not merely a spontaneous remission that would have occurred in the same period of time.

The sample size was small and not representative of the general population, thus the findings cannot be generalised to the broader population

The use of a qualitative research design means that the data gathered is only of value and only holds meaning for the particular domain in which the research was conducted. Data gathered in a qualitative manner cannot be subject to statistical analysis and is consequently not generalisable to the broader population.

The use of non-probability sampling is limited in that, once again, the findings are not generalisable. Furthermore, the size of the sample group, six respondents, further

compounds the lack of generalisability, and it is difficult to draw meaningful conclusions as such a small number does not adequately represent the larger population.

The data collection process is a time consuming one which is reliant on the skills of the researcher. A researcher with limited experience and skills in the interviewing process may not attain the same “richness” of data had they had more skills. Furthermore, unlike quantitative research, in the qualitative paradigm respondents may deviate from the topics being researched thus making analysis difficult. Similarly, respondents may misinterpret what is being asked of them and answer off the topic.

When analysing qualitative data the possibility of researcher bias and lack of subjectivity is ever present. Although one always tries to account for this, misinterpretation based upon preconceived notions may affect the outcome of the findings, thus skewing the results.

Operating as both the group facilitator and the researcher there is a very real risk that participants have provided feedback that they feel may contribute to the positive outcome of this research, rather than an honest reflection of how they truly feel. Further, the possibility of the researcher’s bias may unwittingly influence participants to answer in a manner that supports a favourable outcome.

The CHC services a fairly large geographical area that is home to a culturally diverse population. A number of participants in the group did not speak English as a first language. This barrier may have resulted in a loss of richness during the group process, or in the preliminary or concluding interviews. This may also have an impact upon any statistical data gathered and skew the results of the research.

3.8 Conclusion

This chapter outlined the methodology involved in the research process. The following chapter presents the findings that came out of the research linking them to pertinent literature on the topic.

University Of Cape Town

4. Findings

4.1 Introduction

The findings presented in this chapter are done so in two parts, reflecting the mixed methodology design of the research. The quantitative statistics are tabulated and discussed, followed by the qualitative framework for analysis, drawn from the concluding interview, and a discussion thereof. Pertinent demographic information opens the chapter in order to contextualise the findings.

4.2 Demographics

A sample of eight women was recruited, however one woman failed to attend any of the sessions and a second participant dropped out after the second session citing serious accommodation issues as the reason. Six women (n = 6) completed the programme having attended a minimum of 6 sessions, with two of the women having attended all 8 sessions.

Treatment sample	N = 6
Primiparous	4
Mean age	24.5 years
Mean age of baby at commencement	4.34 months
Marital status	
• Single	4
• Co-habiting	2
Education	
• Gr 8 – 10	4
• Gr 11 - 12	2
Unplanned pregnancy	5
Accommodation	
• House	3
• Flat	1
• Temporary structure	2
Problems with primary support	6

Table 1 Participant Demographics

Most of the mothers attending the group were in their twenties with an average age of 24.5 years. The youngest member of the group was 19 at commencement whilst the oldest was 29 years. The mother who dropped out after the first session was substantially older than the rest of the group at 42 years of age. The infants had a combined average age of 4.34 months at the start of the group process. There was an even split in the sexes with three girls and three boys whilst one of the baby boys had a confirmed diagnosis of foetal alcohol syndrome.

Of the six mothers, two were either married or co-habiting however they both described these relationships as unsatisfactory. The youngest mother in the group described herself as in a relationship with her baby's father although they saw each other infrequently as they reside in different areas. Two fathers left their relationships when they found out that their partners were expecting, another father was in prison. For four of the mothers this was the birth of their first child. One mother had an older son that did not live with her whilst another mother had a previous still birth.

Although none of the mothers had completed high school, two women had obtained a minimum of Grade 11. Two of the mothers were employed; however one of these two was still on maternity leave at the commencement of the group intervention. As a result of this low level of employment five out of the six mothers had an income of less than R1000 per month and only one mother was in receipt of the child support grant. Whilst half of all mothers lived in houses with indoor plumbing and one in a flat with indoor plumbing, two mothers and their infants lived in temporary dwellings with no such service.

All of the mothers reported that they had had a difficult or traumatic labour and that they were poorly treated in the hospitals by the nursing staff. Indeed one mother reported delivering her baby on her own after her calls for assistance were ignored. Further all of the mothers stated that they either lacked any primary support whatsoever, or the relationships were problematic. None of the mothers were on antidepressant medication, and despite a referral for further assessment and treatment none of them took this up. Nonetheless, they all maintained regular contact with the clinic and continued to attend appointments at the health care centre.

4.3 Quantitative Findings

Changes in mood and maternal attitude were determined by re-administering the EPDS and the MAQ at the conclusion of the therapeutic group intervention. The table below presents these scores and is followed by a discussion of the quantitative findings.

Time	N	EPDS		MAQ	
		Mean	Range	Mean	Range
Before	6	22.17	14 – 26	15.5	12 - 20
After	6	14.83	12 – 18	7.16	2 - 13
P-value			0.046		0.043

Table 2 Mean depressive and attitudinal scores at pre- and post-intervention

The table presents the changes in both the EPDS and the MAQ where scores on both measures were reduced over time, indicating a decrease in negative mood symptoms and an improvement in maternal attitude. The mean EPDS score ($M = 22.17$) measured

prior to the commencement of intervention showed a decline at the conclusion of the programme ($M = 14.83$). This decrease in EPDS scores indicates that there was a significant improvement in maternal mood. The cut-off threshold of 12 on the EPDS indicates that the mothers remained depressed at the conclusion of the group, however the improvement in the scores overall suggests a general improvement of mood. When the Wilcoxon Signed Rank test was conducted it revealed that the data indicated a statically significant decrease in scores from baseline on the EPDS ($P = 0.046$). A score of less than 0.05 allows one to conclude that the improvements made are due to the intervention and not solely to the passage of time. Thus $P = 0.046$ indicates that there was a significant improvement in the mothers' mood as a result of the therapeutic group intervention.

As with the EPDS, the mean MAQ scores reflected a decrease between the initial measurement ($M = 15.5$) and that conducted at the conclusion of the intervention ($M = 7.16$). This difference between the original score and that at conclusion indicates that there was improved maternal attitudes amongst the group of mothers. The Wilcoxon Signed Rank test conducted on these scores confirms there was a statistically significant decrease in scores from baseline for the MAQ ($P = 0.043$), which indicates the mothers maternal attitudes had improved as a result of the therapeutic group intervention.

4.4 Discussion of Quantitative Findings

The final group session was a sombre one, not least because of the termination of a cohesive and supportive group but due to the kidnapping of the baby of respondent 5

some days prior¹. Respondent 5 was in a state of severe shock: withdrawn, tearful and cut-off; whilst other members showed signs of great distress and worry. Consequently, there is a real possibility that both the EPDS and MAQ scores of respondent 5, and indeed any of the other respondents', may be affected by this distressing event. Similarly, the richness of the data gathered in the interview is likely to have been restricted by the general mood of the group in response to the loss of a young member.

Nonetheless, the group members showed signs of resilience and demonstrated the great support that they had all come to value in each other. Whilst the group leader took respondent 5 to the police station to report the matter, the remaining mothers opted not to terminate the session but remain at the venue and continue with the session as planned once the matter had been reported. During this time, mothers pulled together arranging the group room, preparing the refreshments, praying for the safe return of the baby, and offering each other compassion and support.

Respondent 5's attendance at the final session was in itself evidence of the extent to which the group had become a resource of support and containment, with her stating that it was for this reason that she decided to attend.

Despite the significant improvements, all of the women remained depressed at the conclusion of the programme with EPDS scores on or above the cut-off of 12. Adverse social circumstances cannot be ruled out in the failure for the scores of all women to drop below the cut-off point. Cooper *et al.* (2002) reported that they had minimal success in improving maternal mental mood in a small sample of women in a South African

¹ The infant was found in the custody of his paternal grandmother in another province more than a week after his disappearance. He was unharmed and returned to his mother. No charges were laid.

settlement. This, the authors concluded, was most likely due to having a child in the context of overwhelming social difficulties that typify such environments and that therapeutic home visits may be inadequate in combating maternal depression. It may similarly be the case that the therapeutic group intervention was not sufficient in uplifting the mood of respondents beyond the threshold score in the face of the social challenges that face them living in under-resourced and conflict ridden communities. That the mothers remained depressed given these challenges is not surprising, but that they improved in spite of them, is.

Respondent 6's EPDS score increased from 14, the lowest at the start of the group, to 16 at conclusion indicating that her mood, rather than improving, deteriorated. Respondent 6 was perhaps the least active participant in the group process and she was less able to engage with other members and the facilitator. It is possible that she either did not derive the same benefit as other members or found the improvement in others and the lack thereof in herself disheartening. An alternative explanation may be that she was unable to comprehend and give meaningful answers to some of the statements posed by the EPDS. Her spoken English and level of comprehension appeared to be below that of the rest of the group. The area of significant difference between the pre- and post-intervention occurred on statement 6 of the EPDS. The statement reads:

Things have been getting on top of me:

Yes, most of the time I haven't been managing well at all

Yes, sometimes I haven't been managing as well as usual

No, most of the time I have managed quite well

No, I have been managing as well as ever

Respondent 6's answer at the initial screening interview was: no, I have been managing as well as ever. However, her response in the post-intervention session was: yes, most of the time I haven't been managing well at all. It is a possibility that the "anti-acquiescence" structure of the responses to statement 6 confused the respondent either at her initial or concluding screening, thus confounding the data.

Although Lawrie and colleagues (1998) made the recommendation to utilise a translator for women whose English was poor, women who had difficulty in communicating in English were not included in the sampling process thus a translator was not deemed necessary. It is the researcher's contention that statement 6 of the EPDS is confusing for someone who does not speak English as a first language even if their general English speaking ability is not otherwise considered poor.

Improvements in maternal attitude were noted for all participants, again except for respondent 6 who's score remained constant. These otherwise substantial improvements are further supported by the qualitative data obtained from mothers. For example, Respondent 3 reflected on her maternal role with a more positive attitude which had not been present prior to attendance of the group: "*Now I know I am a mother, ja!*"

4.5 Qualitative Findings

The data gathered in the concluding interview was analysed and sorted for themes. A simple framework for analysis is presented below.

Themes	Categories	Sub-Categories
4.6.1. Mothers' perceptions of change	4.6.1.1 Mood	
	4.6.1.2 Attitude	
4.6.2 Mothers' perceptions of attachment to their infants		
4.6.3 Mothers' perceptions and experiences of the group	4.6.3.1 Missing infant	
	4.6.3.2 Positive aspects	<ul style="list-style-type: none"> • Social contact • Helpful and enjoyable topics and activities • Mother-baby activities • Recommendations
	4.6.3.3 Doubts	
	4.6.3.4 Undiagnosed depression	
4.6.4 Unsolicited advice		

Table 3 Framework for Analysis

4.6 Discussion of Qualitative Findings

4.6.1 Mothers' Perceptions of Changes in Mood and Attitude

4.6.1.1 Mood

All of the mothers in the group indicated that they experienced an improvement in their mood. Respondent 3 was most vocal when she stated:

Everything's changed. Everything's changed, ja... My mood has changed now. I am too happy now!

Respondents 1 and 2 were also able to identify alterations in their feeling states:

I'm definitely calmer than usual. I'm now passive.

I feel very sad that the group is going to end, it's tough, but I feel much better now.

Respondent 5 was also able to acknowledge that there had been a shift in her mood despite the current distress that she was experiencing regarding the disappearance of her child.

Mmm, but I am tearful, today especially. But my mood has changed. It was better [than before the group intervention].

4.6.1.2 Attitude

Many of the mothers made reference to their initial doubts regarding their ability to parent and care for their infants. Respondent 2 was able to identify changes in her thought patterns that contributed to her improved mood and maternal attitude:

[I used to think] a lot of bad things. I didn't think I was good enough. I thought a lot of bad things that broke me down, but now I've learnt that I'm the only one that can look after my child properly and that can be there for her and give her everything that she needs, and I'm actually happy about that.

Respondent 1 found the input and support she received from other mothers' helpful in altering her maternal attitude.

...I thought I was not good enough to raise a child and I had a lot of support from my group telling me that I am a good mother. That I will make it out there, it doesn't matter what other people think or say. And with their support I try to tell myself every minute, every second that you're a good mother, it doesn't matter what other people think or say or how they react.

Save for respondent 6, these self-reported changes in mood and maternal attitudes correspond with the improvements measured on the EPDS and MAQ.

4.6.2 Mothers' perceptions of attachment with their infants

For the mothers in this group their sense of attachment and bonding was initially impaired, as Respondent 1 commented:

Well, at first it felt like I didn't have... I didn't feel much for him, because there was nothing really there...

All the mothers indicated that despite the initial absence of a bond, the attachment process was developing through the facilitation of the group process.

...coming to the group ever since. .. you know. Knowing how to handle him, you know. I learnt from Respondent 2 that putting him on my chest is also something that's a bond. I mean cuddling more. I learn everything new for me. I mean I can go totally gaga now just going somewhere and knowing there's this little person to care for and I haven't had that... you know, not knowing that two years ago I would never have been this person and been totally changed. It changed me into someone. It's amazing. (Respondent 1)

While Respondent 6 didn't yield any positive changes on the EPDS and MAQ she did indicate that the bond between her and her infant had also improved.

Interviewer: When you spend time with her how does it make you feel?

Respondent 6: Now I like to spend time with my baby.

Interviewer: And is that different to in the beginning?

Respondent 6: Yes.

Interviewer: Was it maybe difficult in the beginning to spend time with her?

Respondent 6: Yes.

Respondent 5 felt that her relationship with her son had grown which aided in her competency in interpreting his communication and engaging with him.

Ja, it has now changed. I think I know what he wants now, I can even play with him,

Perhaps the most dramatic change came from Respondent 3. She was initially observed to be withdrawn, unresponsive and remote towards her infant. However, at the conclusion of the group she appeared engaged and in-tune with her son and his special needs. Her own comments confirmed this:

I feel good now and I love him very much now. I love him very much. I can't leave him now, oooh...

No, even when I walk to the shop I think "oh, dear God, I need to run [home to be with him]". It is very different now. The group has helped me a lot. Now I love my baby, I spend more time with him.

4.6.3 Mothers' Perceptions and Experiences of the Group

4.6.3.1 Missing Infant

During the group interview the disappearance of respondent 5's infant not surprisingly emerged as a theme. Participants frequently derailed from the topic of discussion to express their concern or offer solace and insights. These digressions were allowed in order to give group members the space to work through their distress and support one another.

It just shows how strong we can be if anything like this is happening to you. Because if you don't have a good support group of people who really cares about you I don't think you could make it. So you need people around you that supports you. (Respondent 1)

Whilst general support abounded, words and demonstrations of comfort were often directed specifically to respondent 5:

You have to be strong. This is a test that you are going through and you will pass this test with flying colours. (Respondent 4)

4.6.3.2 Positive Aspects

Although all mothers still had scores above 12 on the EPDS they all found the experience of participating in a therapeutic group intervention a beneficial one. Although

not a group intervention, Cooper *et al* (2002) observed that while their individual treatment programme did not yield any significant changes in mood, it was received by the sample of Khayelitsha mothers as a welcome intervention for PND. Similarly, in their research into a therapeutic group intervention for PND Buultjens and colleagues (2008) found that all the mothers in their sample reported the group as a positive experience.

- Social Contact

The women in the group all described their experiences of the group intervention as positive, with many identifying meeting others with similar difficulties as helpful. For example:

For me it was very nice to be in the group. To find that there's other people also going through a lot of things. I learnt a lot out of this group... For me the support group was like my family, they're like my family now. So at the moment I've got nobody else that supports me, only some of my colleagues at work. (Respondent 4)

It was actually a bit challenging at first, it was kind of frightening to share all your problems. I mean when you come to learn all these people you can think we can be actually kind of one big happy family because right now we understand each other. We understand each others problems and we can actually share them with one another and try to make something out of that problem and, you know, make a good thing. And I think we've actually learnt how to be good mothers and not letting other people try to tell us how to raise our babies, who we are or what we can't do. So I think we all learnt a lot from these groups. (Respondent 1)

I've learnt a lot and just to look back at how I was and what I was thinking and what I wanted to do, compared to how I am now. I feel very sad that the group is going to end... I actually enjoyed coming here every Monday and Friday and what ever else day to actually speak and listen to them and their problems and give solutions and stuff. Just speaking about it, I enjoyed that. (Respondent 2)

Griffiths *et al* (2008) reported that half their sample felt that meeting other women with similar problems was in itself the most beneficial aspect of the intervention.

- Helpful and Enjoyable Topics and Activities

Specifically, certain topics and activities were identified as particularly helpful and enjoyable. Respondent 4 found that the assertiveness training helped her address certain issues that she had previously avoided.

The one where we learnt to stand up for ourselves and our children... The assertiveness, ja. Because I felt people tell me "you have to do it this way and this way". And then there're times when I don't know how to tell the people that this is wrong, although I know it is the right ... It's wrong what they doing and they think it's right.

Respondent 1 also found that the assertiveness exercises were beneficial. Respondent 4 learnt how to be more vocal about her needs and that of her baby, Respondent 1 found the skills useful in confronting issues in a more constructive manner.

I used to be very aggressive and it actually really helped me a lot to know how to calm myself, how to be assertive, you know, how to improve myself. So I actually learnt a lot from this. It brings something good out of me because I am not that aggressive person

any more. I know how to calm myself, how to handle a situation or a bad situation and not in an aggressive way.

Discussions centred on family of origin, expectations from family, and expectations of oneself were considered useful in assisting mothers to reflect on their own unrealistic expectations.

Respondent 2: I learnt stuff that I didn't even know and stuff like that. And now I know how I want to raise her and what plans I have.

Interviewer: So you mean in terms of that exercise where we looked at how you were raised and what you want for her?

Respondent 2: Ja.

Half of the mothers explicitly indicated that the session which focused on relaxation techniques and coping with stress was both practical and enjoyable.

The relaxation. I didn't know we had so many muscles in the body that can get so tense. It shows you what stress can do. Ja, and to relax like that, I've never really..., never really relaxed like that. Like how to scrunch yourself, stuff like that. To try that on your own – it really works. (Respondent 1)

Many of the mothers found the individual exercise of writing a love letter to themselves to be both challenging and rewarding, perhaps because the activity required mothers to

dispel any previously held negative cognitions of themselves and engage with kinder and more reality based self-statements. Respondent 1 summed it up thus:

The letter writing was also very challenging, you know. I've never written a letter to myself. I mean saying all those things about yourself: What kind of person you are, I mean, that you deserve better and there is no-one else who is better than you. It's something that you also learn to do for yourself. I mean, the little notes you write to yourself everyday just telling yourself or connecting yourself or certain notes you use to calm yourself or to get through the day... ja.

- Mother-Baby Activities

Interestingly, only one of the mothers cited one of the three joint mother-baby activities as enjoyable or helpful.

The activity where you look at the baby too, so the baby talk back to you. Although they don't say it in words it's in their expressions. That also helped me to know what is her problem. If there is something wrong then I know where to look. Especially the expression you said about where your face is down then they feel sad. I didn't know much about that but you learned us how to do that. Now I know, because sometimes my face is not so nice and I also wondered why she's crying. At least when she is crying then I can calm her down just by giving her a smile.

Those sessions where mothers were required to engage their infants in age appropriate play and baby massage were otherwise not mentioned by the participants as useful or pleasant, and were also observed to be difficult activities for the mothers to engage in. Further, it was in these two sessions that attendance was lowest. In the research of

Bultjens and colleagues (2008) many of the mothers indicated that they found it difficult to engage in playful activities with their infants. The lack of positive response to the mother-infant activities is not surprising when we consider that mothers suffering from PND may be, due to the depressive symptomatology, unresponsive and emotionally remote despite their physical proximity to their infants (Raphael-Leff, 1991). Positive engagement and interactions are necessary for the development of healthy mother-child attachment which if impeded may have enduring psychological and cognitive consequences (Murray *et al.*, 1997; in Cooper *et al.*, 1998). The importance in maintaining a hands-on mother-child approach in treatment is illustrated by the research undertaken by van Doesum and colleagues (2008). They found that their intervention, which included baby massage and the identification and promotion of positive interactions with infants, resulted in higher scores for secure attachments and one aspect of socioemotional functioning compared to the depressed dyads who did not receive such an intervention.

- Recommendations

Encouragingly, all the mothers that participated in the study stated that they would recommend such a support group to others in a similar position. Reay *et al* (2006) found in their treatment evaluation survey of group interpersonal therapy that all participants either agreed or strongly agreed with the statements “I would recommend this therapy to others”.

As Bultjens *et al.* (2008) found in their evaluation of a group intervention, all the mothers in this intervention indicated that they would continue to attend the group if it were held on an on-going basis.

Respondent 4: Ja, I also think so. More challenges are going to come as the babies are growing and as we go on with this journey.

Respondent 2: And there's stuff that we can teach one another: that we don't actually know that she knows maybe that I don't know... We can share our thoughts and that actually... it's like a support, a very good support.

4.6.3.3 Doubts

Three of the mothers conceded at the end of the group interview that they had initially been sceptical about attending a support group, although nonetheless found it very helpful in the end:

I was feeling it's not going to help.... I think that. But now? No, I'm grateful. (Respondent 3)

Respondent 5 echoed this initial sentiment even more strongly; however she nonetheless attended all eight group sessions:

The day you talked to me in the clinic it was a little bit strange because I didn't know you and I didn't want to come here, I didn't think it would help me. It helped me...

I also... I... I didn't want to come cause I thought it was a waste of my time. I also lied to you. I give you the wrong number. I give you my baby's father's number, I didn't give you mine. And you actually find me!

Despite the disinclination to attend the group as expressed by half of the mothers, their attendance was high. Honikman and colleagues (2008) found that mothers that lacked

support were more likely to take up the offer of counselling services. It is similarly noted that all of the mothers that participated within this research group had primary support problems.

4.6.3.4 Undiagnosed Depression

Most of the mothers had either never heard of PND or were poorly informed in the nature of the illness. They were thus initially sceptical of the diagnosis despite experiencing depressive symptoms.

At first I thought this lady's totally crazy in her mind: me? Depressed? Oh please! And when she phoned me at first I thought there must be something wrong here, she must have the wrong number... (Respondent 1)

I also didn't know that I had PND, but I saw the symptoms was there. (Respondent 4)

Cooper and Murray 1998 have suggested that PND is underdiagnosed by primary health clinicians, and within Cape Town the research conducted by Mills and colleagues (1995) also established that many women went undiagnosed despite consulting with paediatricians. It is therefore not surprising that women in the under-resourced communities Cape Town are also going undiagnosed and thus untreated.

4.6.4 Unsolicited Advice

A recurring theme for many of the mothers was the unsolicited advice or criticism that they received from other members of the community. Although dealing with such unwanted input was addressed in the group, it continued to be a point of concern.

People can put you down. People can break your self-esteem so down that you don't want to get up. Therefore, I rather... to everyone... get people that's positive, not negative. Negative people will bring you down to a level where you never want to stand up. I've learnt of people – they will always make you feel bad over yourself, over the children. Always interact with people that's positive, that will help you get through this life. (Respondent 4).

Women who suffer from PND have been shown to have particular personality traits and cognitive styles such as low self-esteem, an external locus of control, and perfectionism that existed prior to the onset of PND (Hayworth *et al.*, 1980, in Milgrom *et al.*, 1999). These factors may make a woman more inclined to interpret others' well-intended advice as critical and judgemental. This echoes Boyce's (1994, in Milgrom *et al.*, 1999) assertion that women suffering from PND tend to present with a higher degree of interpersonal sensitivity, be it causal or consequent to the depression.

It is possible that the communities these women find themselves living in no longer have the same degree of collective support. These mothers have become acculturated into a more western and individualistic mode of existence that seems to under-value social support and the developmental transition that motherhood brings. Whilst more than half of the mothers are originally from traditional cultures (Xhosa and Zulu) migration to urban areas may have seen some of the traditional rites of passage referred to by Cox (1996, in Milgrom *et al.*, 1999) become diluted or lost. Perhaps instead of the support and guidance of their original traditional communities these women now find themselves on the receiving end of judgement and criticism.

4.7 Observational Findings

During the course of the group intervention a number of pertinent occurrences were observed and thought to be of relevance to the overall findings of this research project, although they did not emerge out of the quantitative or qualitative investigations *per se*.

At the start of the therapeutic group process many of the mothers were observed to be somewhat distant and detached from their infants. Respondent 3 in particular carried her child as if he were a not too precious parcel, never making eye contact with him or talking to him. She didn't hold him on her lap, instead laying him down on the blanket in front of her chair where he lay for the rest of the session. He never fussed, and she never cooed over him. During the second session Respondent 6 broke down and confided that she had been unaware that she was pregnant until 6 months along and she had consumed alcohol until this point. She was plagued with guilt and found the constant questions about his facial features and size from other community members difficult to handle. The group members rallied around her offering her advice, encouragement, and praise for the job she had done so far. By the conclusion of the group intervention Respondent 6 had made the most dramatic turnaround. She engaged with her baby, he smiled in response to her advances and had begun to kick his legs (before they lay still as if paralysed). Her mood had elevated and she reported that she felt a much improved bond with her baby whose presence she missed if she left him if even for a short while. Some time after the conclusion of the group Respondent 6 contacted the researcher informing her that she was still managing well and happily bonded with her young son.

After session 5 whilst the researcher was packing away all the group paraphernalia in her car she turned and noticed all the mothers walking side by side together, babies in arms, howling with laughter. The joy at this was increased when she was informed at the following session that the mothers had all gone home to one of their houses where they had tea and chatted for a couple of hours.

The fact that the mothers attended the group at all is in itself quite an achievement. The women braved violent taxi strikes, foul winter weather, lack of sleep, illness, difficult home environments and depression to make it to the sessions. No mother missed more than two sessions and two mothers attended every single session.

4.8 Conclusion

Both the quantitative and qualitative findings of the research were presented in this chapter. The statistical data, as measured by the EPDS and the MAQ, were presented in a table format, which was followed by a discussion of the results. A framework for analysis was used to analyse the qualitative data that was gathered in the final session. The themes that emerged out of this analysis were discussed accordingly and linked with theory. Anecdotal observations were included as they illustrate the value of the therapeutic group intervention. The following chapter discusses the conclusions that can be drawn from this research and makes recommendations for future research and practice.

5. Conclusions and Recommendations

5.1 Introduction

This final chapter presents the conclusions of the findings of the research which investigated the efficacy of a therapeutic group intervention as a means of reducing PND symptoms and improving maternal attitude in a sample of postpartum women. The conclusion will be discussed according to the themes that were extracted, which relate to the objectives of this research. Finally, a section on recommendations will present the researcher's personal opinion on future directions.

5.2 Conclusions

5.2.1 Reducing Postnatal Depression

The statistical data demonstrates that the group intervention for the treatment of PND is effective in reducing depressive symptomatology, although the small sample limits the generalisability of this finding. Other international studies exploring the efficacy of the treatment of PND through group intervention have reached similar conclusions, however this is the first such study, as far as the researcher is aware, to be conducted within a South African setting. Although mothers remained depressed at the conclusion of the intervention, as Cooper and colleagues (2002) found with their mother-baby intervention in Khayelitsha, mothers' moods did improve significantly. Although the study did not assess the impact of the intervention on mother-infant bonding, an improved mood may result in more optimal functioning of the mother, better attachment opportunities between mother and infant, and impede the emergence of other cognitive, social, emotional and behavioural problems that may have presented in the child had the depression been left untreated.

5.2.2 Improvement in Maternal Attitudes

The statistical data shows that a therapeutic group of this nature is useful in improving maternal attitudes. The mothers' feedback also suggested that their attitudes towards their infants and motherhood had improved during the course of the group process. More positive maternal attitudes may result in a less depressogenic style of coping and interacting and consequently lead to improved mood and mother-infant interactions (Griffiths *et al.*, 2008).

5.2.3 Mother's Perceptions on Whether a Therapeutic Group Intervention is Beneficial

The containing environment provided by the group itself, social support derived from other group members, psycho-education, and other therapeutic interventions was experienced by the mothers as impacting on them positively to varying degrees. Initial doubts and anxieties were quelled as the various group processes took effect.

All the mothers indicated that they found the group both beneficial and enjoyable. The social support inherent within the group context was identified by a number of the mothers as valuable in their recovery. The mothers also indicated that their communication with and attachment to their infants had improved since they began attending the group. Many of the mothers indicated that the assertiveness training was useful in coping with challenging situations, whilst the discussions examining the mothers' families of origins allowed them to put into perspective their role as mothers. The stress and relaxation training was noted to be both an enjoyable activity and a useful skill for the future. A number of the mothers felt that the individual activity of writing a love letter to themselves was both challenging and fulfilling at the same time.

Joint mother-infant activities were not noted by mothers to be useful or pleasant although recent research suggests the importance of maintaining such activities in intervention approaches. All the mothers were fervent in their agreement that they would recommend this group to other mothers in similar situations and that they would continue attending if it were an on-going group.

5.3 Recommendations

5.3.1 General Recommendations

- A programme such as this is easy to administer and may be readily implemented by a health professional with basic group work training and experience. Indeed, an intervention of this nature is in keeping with the developmental goals of the South African Department of Health and the Department of Social Development.
- Whilst the results demonstrate a positive change in mothers' mood and attitudes, future studies, more rigorous in nature, are needed to determine if such an intervention can make a difference in the general population. The use of a control group, a cost-benefit analysis, and an exploration of the implications for attachment between mother and infant, are pertinent areas of research within this field in the South African setting. Future research is also indicated to test whether the effects of the intervention are enduring.
- Screening of PND needs to be implemented consistently in all maternal health care settings and baby clinics, and should be repeated at regular intervals. Screening may also include the use of other tools such as the Beck Depression Inventory (Beck, Steer & Brown, 1996 in Griffiths and Barker-Collo, 2008), the

Postpartum Depression Screening Scale (Beck & Gable, 2002 in Griffiths and Barker-Collo, 2008), and the Beck Anxiety Inventory (Beck & Steer, 1993 in Griffiths and Barker-Collo, 2008) which may facilitate in isolating specific areas that need to be addressed.

- Due to the high prevalence of PND in certain South African contexts and the paucity of research in these settings the findings and recommendations of this research is to be made available to the South African Department of Health. It is hoped that they will recognise the severity of the problem and the need for prompt screening and intervention which can be administered readily through the establishment of treatment groups such as this.

5.3.2 Recommendations Specific to the Group Process Itself

- Although the groups ran relatively smoothly, the use of a co-facilitator is recommended. Practical hands-on assistance is crucial for setting up, maintenance and management of the group, particularly as the group number is doubled by the inclusion of infants. Therapeutically, a co-facilitator increases objectivity within the setting and allows for greater observation of the group's processes, and the sharing of the emotional burden contained within projections.
- Ideally mothers should be screened and groups should be conducted in the participants' mother tongue.

- This intervention is unique to a degree in that it sought to treat depressive symptoms through the use of a group that included the infants in the process, where the preponderance of previous research focuses on therapeutic interventions that exclude the infant from the group. Although it was not directly measured, as it was beyond the scope of this limited research paper, it is the researcher's belief that the inclusion of the infants in the group may enhance the attachment between mother and child, which is often impaired as a result of the depression. Indeed it was noted by many of the mothers that they felt that the bond between them and their child had developed at the conclusion of the intervention. The group intervention similarly had a positive effect on the mothers' moods and attitudes towards their infants.
- Although joint mother-baby activities did not rate highly in mothers' responses of what they found beneficial, it is felt that decreasing these activities will only undermine the therapeutic effects and development of attachment. An increased focus on mother-infant interactions and techniques in mindfulness may be useful in promoting the bond between mother and child, helping them formulate a positive representation of their infant as young beings with wants, needs, desires and dislikes separate from their own. However, even if the group does not explicitly focus on the direct interaction between mother and child, it is still felt critical that it is the mother-baby dyad that attends the sessions, as opposed to the mother alone.
- Much of the international research into group treatment of PND includes a "partners evening". This was not incorporated into this study as many of the women were single mothers. However, a group session where mothers bring

along another family member, friend or other supportive person may indeed be worthwhile, particularly in light of the fact that many mothers cited “unsolicited advice” as an ongoing concern. This session could be used to educate and mobilise these individuals into supporting rather than judging or criticising their friend or family member. They would then be in a position to offer support that the mother has become accustomed to in the group setting, on an on-going basis thereby re-enforcing gains made and limiting the likelihood of relapse.

- Although this group was time-limited, an on-going group intervention may have increased benefits for mothers and infants. If the resources are available the group could run as an ongoing, open group that allowed new mothers to enter as they are diagnosed, thus reaching a large group of depressed women.

5.3.3 Advocacy

- Education of both health care professionals and the general public needs to be increased. Inclusion of a module in the curriculum of all those training to become health care professionals, workshops for those already in the health sector, and on-going public awareness through posters, pamphlets, and talks at community health centres are needed. Stigmatisation of PND as a mental illness needs to be reduced, and awareness that this is a common and treatable illness must be promoted in order to limit the impact on both mother and infant.

5.4 Conclusion

This final chapter presented the main conclusions drawn from the research undertaken.

The therapeutic group intervention in this study appeared to be beneficial in reducing

symptoms of PND and improving maternal attitude. Similarly, qualitative responses indicate that it was experienced as an acceptable, and indeed desirable, method for the treatment of PND as mothers found it to be helpful in improving their mood, and increasing the bond between them and their infants. Recommendations for future directions focused on the need for more rigorous research conducted with a control group, research that explores the cost-benefit implications of running such groups, and further assesses implications for attachment. Increased education of both health professionals and the general public is needed, whilst screening of mothers, in their own language, needs to be conducted consistently across health care settings. Future groups should be conducted in the participants' first language, and the presence of a co-facilitator considered. Increased mother-infant activities and the inclusion of a "friend's session" may be of further benefit to both mothers and infants.

Whilst PND is a serious illness with possible enduring deleterious effects for mother and infant, it is at the same time easily diagnosed and highly treatable. A group intervention appears to be well situated to offer an acceptable means of treatment that is effective and capable of reaching larger groups of women than individual therapy. This, given the high preponderance of women suffering from PND in certain South African settings, makes it a deserving field of future research and investment.

References

Appleby, L. and Whitton, A. (1993). Recruitment for post-natal depression studies. [letter to the editor]. *British Journal of Psychiatry*. 163, 691.

Bion, W.R. (1963). *Learning from Experience*. London: Karnac Books.

Boath, E. and Henshaw, C. (2001). The treatment of postnatal depression: a comprehensive literature review. *Journal of Infant and Reproductive Psychology*. 19 (3), 215 – 248.

Bultjens, M., Robinson, P., and Liamputtong, P. (2008). A holistic programme for mothers with postnatal depression: a pilot study. *Journal of Advanced Nursing*. 63 (2), 181 – 188.

Cooper, P.J., Landman, M, Tomlinson, M., Moltano, C., Swartz, L. and Murray, L. (2002). Impact of mother-infant intervention in an indigent peri-urban South African context. *British Journal of Psychiatry*, 180, 76 – 81.

Cooper, P.J. and Murray, L. (1997). The role of infant and maternal factor in postpartum depression, mother-infant interactions, and infant outcome. In L. Murray & P.J. Cooper (Eds.), *Postpartum Depression and Child Development*, (pp. 111 – 135). New York: Guilford.

Cooper, P.J., and Murray, L. (1998). Fortnightly review: postnatal depression. *British Medical Journal*, 316, 1884 - 1886.

Cooper, P.J., Tomlinson, M., Swartz, L., Woolgar, M., Murray, L., and Molteno, C. (1999). Postpartum depression and the mother-infant relationship in a South African peri-urban settlement. *British Journal of Psychiatry*. 175, 554 – 558.

Cooper, P.J., Murray, L., Wilson, A., and Romaniuk, H. (2003). Controlled trial of the short- and long term effect of psychological treatment of post-partum depression: Impact on maternal mood. *British Journal of Psychiatry*, 182, 412 – 419.

Cox, J.L., Holden, J.M., and Sagovsky, R (1987). Detection of postnatal depression: development of the Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782 – 786.

Craig, E., Judd, F., and Hodgins, G. (2005). Therapeutic group programme for women with postnatal depression in rural Victoria: a pilot study. *Rural and Remote Psychiatry*. 13 (3), 291 – 295.

De Vos, A.S. (2005). Qualitative data analysis and interpretation. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L.Delport (Eds.), *Research at Grass Roots*, (pp. 339 – 355). Pretoria: Van Schaik Publishers.

De Vos, A.S. (2005). Combined quantitative and qualitative approach. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delport (Eds.), *Research at Grass Roots*, (pp. 363 – 372). Pretoria: Van Schaik Publishers.

Fouché, C.B. and Delport, C.S.L. (2005). Introduction to the research process. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delport (Eds.), *Research at Grass Roots*, (pp. 77 – 92). Pretoria: Van Schaik Publishers.

Fouché, C.B. and de Vos, A.S. (2005). Quantitative research designs. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delport (Eds.), *Research at Grass Roots*, (pp. 137 – 149). Pretoria: Van Schaik Publishers.

Fraiberg, S., Adelson, E. and Shapiro, V. (2008). Ghosts in the nursery: a psychoanalytic approach to the problems of impaired infant-mother relationships. In J. Raphael-Leff (Eds.), *Parent-Infant Psychodynamics: Wild Things, Mirrors & Ghosts*, (pp. 87 – 117). London: Anna Freud Centre.

Greef, M. (2005). Information collection: interviewing. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delport (Eds.), *Research at Grass Roots*, (pp. 137 – 149). Pretoria: Van Schaik Publishers.

Griffiths, P. and Barker-Collo, S. (2008). Study of a group treatment program for postnatal adjustment difficulties. *Archives of Women's Mental Health*, 11, 33 -41.

Hanusa, B.H., Hudson Scholle, S., Haskett, R.F., Spadaro, K., and Wisner, K. (2008) Screening for depression in the postpartum period: a comparison of three instruments. *Journal of Women's Health*, 17 (4), 585 – 596.

Hay, D.E. (1997). Postpartum depression and cognitive development. In L. Murray & P. J. Cooper (Eds.), *Postpartum Depression and Child Development*, (pp. 85 – 110). New York: Guilford.

Honey, K.L., Bennett, P., and Morgan, M. (2002). A brief psycho-educational group intervention for postnatal depression. *British Journal of Clinical Psychology*, 41, 405 – 409.

Honikman, S., Field, S., Kafaar, Z., Fawcus, S., and Flisher, A.J. (2008, August). *The Perinatal Mental Health Project (PMHP): a summative evaluation of a pilot implementation programme*. Poster session presented at the 4th International Mental Health Conference, London, UK.

Kauppi, A., Kumpulainen, K., Vanamo, T., Merikanto, J., and Karkola, K. (2008). Maternal depression and filicide – case study of ten mothers. *Archives of Women's Mental Health*, 11, 201 – 206.

Lawrie, T.A., Hofmeyer, G.J., de Jager, M., and Berk, M. (1998). Validation of the Edinburgh Postnatal Depression Scale on a cohort of South African women. *South African Medical Journal*, 88 (10), 1340 – 1344.

Likierman, M. (2003). Post natal depression, the mother's conflict and parent-infant psychotherapy. *Journal of Child Psychotherapy*, 29 (3), 301 -315.

Milgrom, J., Martin, P.R., Negri, L.M., (1999). *Treating Postnatal Depression*. West Sussex: Wiley.

Milgrom, J., Negri, L.M, Gemmill, A.W., McNeil, M., and Martin, P.R. (2005). A randomized controlled trial of psychological interventions for postnatal depression. *British Journal of Clinical Psychology*, 44, 529 – 542.

Mills, E. P., Finchilescu, G., and Lea, S.J. (1995). Postnatal depression – an examination of psychosocial factors. *South African Medical Journal*, 85 (2), 99 – 105.

Murray, L. (2008). The effect of infants' behaviour on maternal mental health. In: *Parent-Infant Psychodynamics: Wild Things, Mirrors & Ghosts* (ed J. Rapahel-Leff), 262 – 267. Anna Freud Centre, London, UK.

O'Hara W. (1997). The nature of postpartum depressive disorders. In L. Murray & P. J. Cooper (Eds.), *Postpartum Depression and Child Development*, (pp. 3 – 31). New York: Guilford.

Pinheiro, R. T., da Silva, R. A., Magalhães, P. V. S., Horta, B. L., and Pinheiro, K.A.T. (2008). Two studies on suicidality in the postpartum. *Acta Psychiatrica Scandinavica*, 118, 160 – 163.

Poobalan, A.S., Aucott, L.S., Ross, L., Smith, W.C.S., Helms, P.J. and Williams, J.H.G. (2007). Effects of treating postnatal depression on mother-infant interaction and child development. *British Journal of Psychiatry*, 191, 378 – 386.

Ramchandani, P.G., Richter, L.M., Stein, A., and Norris, S.A. (2009). Predictors of postnatal depression in an urban South African cohort. *Journal of Affective Disorders*, 113, 279 – 284.

Raphael-Leff, J. 1991. Psychological processes of childbearing. Great Britain: Chapman and Hall.

Reay, R., Fisher, Y., Robertson, M., Adams, E., & Owen, C. (2006). Group interpersonal psychotherapy for postnatal depression: a pilot study. *Archives of Women's Mental Health*, 9, 31 – 39.

Saxena, S., Thornicroft, G., Knapp, M., & Whiteford, H. (2007). Resources for mental health: scarcity, inequity, and inefficiency. *Lancet*, 370 (9590), 878 – 889.

Strydom, H. (2005). Ethical aspects of research in the social sciences and human service professions. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delpont (Eds.), *Research at grassroots*, (pp. 62 – 76). Pretoria: Van Schaik Publishers.

Strydom, H. (2005). Single-system design. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delpont (Eds.), *Research at grassroots*, (pp 150 – 164). Pretoria: Van Schaik Publishers.

Strydom, H. and Venter, L. (2005). Sampling and sampling methods. In A.S. de Vos, H, Strydom, C.B. Fouché, & C.S.L. Delpont (Eds.), *Research at Grass Roots* (pp. 363 – 372). Pretoria: Van Schaik Publishers.

Tam, L.W., Newton, R.P., Dern, M., & Parry, B.L. (2002). Screening women for postpartum depression at well baby visits: resistance encountered and recommendations. *Archives of Women's Mental Health*, 5, 79 – 82.

Tomlinson, M., Cooper, P.J. and Murray, L. (2005). The mother infant relationship and infant attachment in a South African peri-urban settlement. *Child Development*, 76 (5), 1044 – 1054.

Van Doesum, K.T.M, Riksen-Walraven, J.M., Hosman, C.M.H., and Hoefnagels, C. (2008). A Randomized controlled trial of a home-visiting intervention aimed at preventing relationship problems in depressed mothers and their infants. *Child Development*, 79 (3), 547 – 561.

Warner, R., Appleby, L., Whitton, A., and Faragher, B. (1997). Attitudes towards motherhood in postnatal depression: development of the maternal attitudes questionnaire. *Journal of Psychosomatic Research*, 43 (4), 351 - 358.

Yalom, I.D. (1995). *The theory and practice of group psychotherapy*, 4th edn. New York: Basic Books.

Outline of Group Sessions

Session	Contents of Session
1	Introduction and orientation to the group process Understanding PND - causes and symptoms Exploring birth experiences
2	Semi-structured group discussion aimed at developing supportive connections, promoting positive coping strategies and attachment behaviours and addressing unhelpful cognitions and behaviours
3	CBT techniques Relaxation exercise Coping with stress
4	The importance of play for learning and bonding Baby massage
5	Family of origin Challenging unhelpful thoughts and unrealistic expectations
6	Assertiveness training Improving self-esteem
7	Learning and understanding baby's communication
8	Reflection Termination and moving forward Group evaluation Re-administering of tests

Edinburgh Postnatal Depression Scale

Cox, Holden, and Sagovsky (1987)

As you have recently had a baby, I would like to know how you are feeling. I am going to read some statements to you and give you a choice of four responses.

For example, I have felt happy:

Yes, all the time

Yes, most of the time

No, not very much

No, not at all

Please choose an answer that comes closest to how you have felt *in the past seven days*, not just how you feel today.

In the past seven days:

- | | |
|---|---|
| 1. I have been able to see the funny side of things: | |
| As much as I always could | 0 |
| Not quite so much now | 1 |
| Definitely not so much now | 2 |
| Not at all | 3 |
| 2. I have looked forward with enjoyment to things: | |
| As much as ever | 0 |
| A little less than I used to | 1 |
| Much less than I used to | 2 |
| Hardly at all | 3 |
| 3. I have blamed myself unnecessarily when things went wrong: | |
| Yes, most of the time | 3 |
| Yes, some of the time | 2 |
| Not very much | 1 |
| No, never | 0 |
| 4. I have been worried for no good reason: | |
| No, not at all | 0 |
| Hardly ever | 1 |
| Yes, sometimes | 2 |
| Yes, very much | 3 |
| 5. I have felt scared or panicky for no very good reason: | |
| Yes, quite a lot | 3 |
| Yes, sometimes | 2 |
| No, not much | 1 |
| No, not at all | 0 |
| 6. Things have been getting on top of me: | |
| Yes, most of the time I haven't been managing at all | 3 |
| Yes, sometimes I haven't been managing as well as usual | 2 |
| No, most of the time I have managed quite well | 1 |
| No, I have been managing as well as ever | 0 |

7. I have been so unhappy that I have had difficulty sleeping (not because of the baby):
- | | |
|-----------------------|---|
| Yes, most of the time | 3 |
| Yes, sometimes | 2 |
| Not very much | 1 |
| No, not at all | 0 |
8. I have felt sad and miserable:
- | | |
|-----------------------|---|
| Yes, most of the time | 3 |
| Yes, quite a lot | 2 |
| Not very much | 1 |
| No, not at all | 0 |
9. I have been so unhappy that I have been crying:
- | | |
|-----------------------|---|
| Yes, most of the time | 3 |
| Yes, quite a lot | 2 |
| Only sometimes | 1 |
| No, never | 0 |
10. The thought of harming myself has occurred to me:
- | | |
|------------------|---|
| Yes, quite a lot | 3 |
| Sometimes | 2 |
| Hardly ever | 1 |
| Never | 0 |

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Maternal Attitudes Questionnaire

Warner, Appleby, Whitton, and Faragher (1997)

Below is a series of statements about being a mother. In each case please indicate the answer which most applies to you. This questionnaire is seeking your opinion - there are no right or wrong answers.

1. I think my baby is very demanding.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

2. I feel proud of being a mother.

Strongly agree	Agree	Disagree	Strongly disagree
0	0	1	2

3. I am disappointed by motherhood.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

4. Having a baby has made me as happy as I expected.

Strongly agree	Agree	Disagree	Strongly disagree
0	0	1	2

5. I sometimes regret having my baby.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

6. I am the only person who can look after my baby properly.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

7. To be a good mother, I should be able to cope well all the time.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

8. If my baby is unwell or unhappy it is not my fault.

Strongly agree	Agree	Disagree	Strongly disagree
0	0	1	2

9. I have resented not having enough time to myself since having my baby.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

10. My daily life has been no more difficult since my baby was born.

Strongly agree	Agree	Disagree	Strongly disagree
0	0	1	2

11. If I find being a mother difficult, I feel a failure.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

12. If I love my baby I should want to be with him/her all the time.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

13. If other people help me look after my baby, I feel a failure.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

14. I resent the way my life has been restricted since having my baby.

Strongly agree	Agree	Disagree	Strongly disagree
2	1	0	0

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Interview Schedule

What did you feel about the group experience?

Were there any particular topics that were covered in group session that you found helpful?

Were there any particular activities that you enjoyed or found helpful?

Were there any particular topics that you found unhelpful?

What would you change about the group?

Did you feel that your own mood changed?

Do you feel that your feelings towards your baby have changed?

Would you recommend this sort of group to a friend in a similar situation to you?

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