

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

113  
6139

WOMEN'S ATTRIBUTIONS SUBSEQUENT TO MISCARRIAGE  
AN EXPLORATORY STUDY

A thesis presented in partial fulfilment  
of the requirements for the degree of  
Master of Arts in Psychology  
at Massey University.

Fiona Margaret Kennedy  
1993

This thesis is dedicated to my children  
Patrick, Meredith, and Lachlan.

#### ACKNOWLEDGEMENTS

I am very grateful to Professor Margaret Madden, for permission to use her interview schedule.

I would like to thank Cheryl Woolley for her supervision, in particular her help with interview issues. I am especially grateful to Ross Flett, for his invaluable and patient assistance with the data analysis.

Thanks are due to Gaye, Catherine and Jan for their help with proof reading and recruiting; to Roger for his support; and Kathy, Sharon and Steve for their encouragement and help. A special thank you to Jill, for formatting and helping with the manuscript.

I would also like to thank Aileen Woodman and Patrika Gillon, coordinators of the Palmerston North and Wellington Miscarriage Support Groups respectively, who encouraged me and supported the project. Finally, I wish to express my sincere gratitude to my respondents, whose motivation, in sharing their stories with me, was to help other women in the situation of miscarriage.



## TABLE OF CONTENTS

	<b>Pages</b>
Acknowledgements	iii
List of Figures and Tables	vi
List of Appendices	vii
Abstract	viii
 <b>CHAPTER I</b>	
<b>INTRODUCTION</b>	<b>1</b>
 <b>CHAPTER II</b>	
<b>MISCARRIAGE: EPIDEMIOLOGY AND ETIOLOGY</b>	<b>6</b>
Definitions	6
Incidence	6
Etiological factors	7
Summary	20
 <b>CHAPTER III</b>	
<b>REVIEW OF THE LITERATURE</b>	<b>21</b>
Reactions to pregnancy loss:	
Traditional views	22
Studies on women's reactions to pregnancy loss	23
The relevance of attachment to miscarriage	28
Gestational age and attachment	30
Summary	35
 <b>CHAPTER IV</b>	
<b>DEVELOPMENT OF THE PRESENT STUDY</b>	<b>36</b>
Attributions subsequent to pregnancy loss: Review of the research	37
Madden's (1988) study	38
Nature of attributions subsequent to pregnancy loss.	40
The present study : Hypotheses	41
Level of information about miscarriage	43
Information hypotheses	45
 <b>CHAPTER V</b>	
<b>THE STUDY : OBJECTIVES AND INSTRUMENTS USED</b>	<b>46</b>
Objectives	46
Instruments used	46
 <b>CHAPTER VI</b>	
<b>METHOD</b>	<b>52</b>
Respondents	52
Materials and Procedure	55

<b>CHAPTER VII</b>	<b>RESULTS</b>	57
	Attributions	
	Comparison of MHI scores and attributions	63
	Information	66
	Perceptions related to pregnancy and gestation	68
	Emotional reactions at the time of the miscarriage	74
<b>CHAPTER VIII</b>	<b>DISCUSSION</b>	76
	Limitations of the present study	76
	General findings:	
	Attributional Hypotheses	77
	Attributional issues	85
	Future research: Attributions and perinatal loss	91
	Summary	92
<b>CHAPTER IX</b>	<b>CONCLUSION</b>	94
	Nature of miscarriage as a life event	94
	Future research: Perinatal loss	99
	Practical implications	101
	Conclusion	102
<b>REFERENCES</b>		104
<b>APPENDICES</b>		116
	Appendix A	
	Appendix B	
	Appendix C	
	Appendix D	
	Appendix E	
	Appendix F	

## LIST OF FIGURES AND TABLES

## Figure

- 1 Structure of the MHI

## Table

- 1 Length of time elapsed since miscarriage
- 2 Incidence of previous spontaneous abortions within the sample
- 3 Mean responses and per cent endorsement of attributions of responsibility items
- 4 Mean responses and per cent endorsement of specific internal attributions
- 5 General attributions about miscarriage
- 6 Specific attributions about miscarriage
- 7 Significant correlations among internal attribution items
- 8 Correlations between attribution items and gestation
- 9 Significant differences from comparison of MHI subscale scores and specific internal attribution items
- 10 Significant differences from comparison of MHI scores and global attribution items
- 11 Respondents perceptions of information related to miscarriage
- 12 Extent to which respondent considered possibility of miscarriage prior to index miscarriage
- 13 Comparison of information levels between women with no previous miscarriages, and women with previous miscarriages
- 14 Perceptions related to pregnancy
- 15 Significant correlations relating to perceptions of pregnancy
- 16 Perceptions about miscarriage
- 17 Free responses to pregnancy cue
- 18 Free responses to miscarriage cue
- 19 Emotional reactions immediately following the miscarriage

## LIST OF APPENDICES

## Appendix

- A Interview schedule
- B Mental Health Inventory
- C Information sheet
- D Letter to women
- E Letter to doctors
- F Informed consent form

## ABSTRACT

Although spontaneous abortion is a routine medical event, no definitive etiology exists, and research available indicates reactions can be problematic. To investigate the relationship of attributions about miscarriage and psychological well-being, a partial replication was conducted of an earlier study. In the present study, forty-eight women were interviewed about their attributions, emotional reactions and their level of information about miscarriage. Madden's (1988) format was used, and a well-being measure was administered. Few women made attributions to themselves or to others. Women were more likely to attribute responsibility to chance. The hypothesised relationships of attributions with psychological well-being, received equivocal support. As hypothesised, respondents generally reported low levels of information about miscarriage, and this was especially pronounced in women without prior experience of miscarriage. These findings are discussed, and suggestions made for future research both on attributions, and perinatal loss. Concluding remarks include observations about miscarriage as a life event, and the practical implications of the research.

## CHAPTER I

### INTRODUCTION

Spontaneous abortion or miscarriage is a phenomenon which is rarely discussed openly, and until relatively recently has been the focus of little empirical research. Recurring phrases in the literature which encapsulate the shrouded nature of pregnancy loss demonstrate this. Examples are : "the hidden family grief"; (Kirkley Best & VanDevere, 1986) "the invisible loss"; (DeFrain, 1986). The 'conspiracy of silence' which surrounds the issue of spontaneous abortion has been referred to repeatedly (Oakley, McPherson & Roberts, 1990; Pizer & Palinski, 1981; Reinharz, 1988).

It is also clear from the literature that miscarriage is a difficult topic for many health professionals (Bourne, 1968; Knapp & Peppers, 1979; Lovell, 1983; Kirk, 1984). One possible reason for this might be a widespread expectation of control over reproductive outcomes. This is held by patients and doctors alike, fostered by knowledge about medical and technological advances in reproductive areas such as contraception, termination of pregnancy, and infertility (Miller, 1983). This expectation of control is rendered illusory in the situation of spontaneous abortion because few miscarriages can be prevented, no definitive etiology exists, and the incidence is surprisingly high.

Reinharz has coined the term "social gynopia" to characterize the tendency of researchers "being unable to see women as subjects, thus rendering them invisible," (Reinharz, 1985, cited Reinharz, 1988, p. 85). Reinharz views the shrouded nature of the phenomenon of miscarriage as part of a general lack of attention to issues which affect women and its corollary : the trivialization of women's experience. This may be a contributing factor to attitudes towards miscarriage, but if it is then feminists themselves must be called to task. It is surprising that in view of the increased prominence of feminism

and women's studies, feminist analyses treating women's health issues, sociology, and the psychology of women, rarely, if ever, mention miscarriage (Haines, 1983; Matlin, 1987; Travis, 1988; Andersen, 1993). Kitzinger (1983; 1987) and Niven (1992) are recent exceptions.

Possibly attitudes to perinatal loss have more to do with the way our society handles issues relating to death, and in particular, perinatal death. Rosenblatt and Burns (1986) point out that there exists "an ambiguity of societal membership for an embryo, fetus, or newborn" (Rosenblatt & Burns, 1986, p.236). Kitzinger (1987) reports that in third-world countries, where perinatal and neonatal loss rates are high, infants are not named immediately after birth, and if deaths do occur, grieving rituals deriving from cultural attitudes to death and dying, probably mean less problematic reactions for parents occur.

Reinharz (1988) has also criticised the widespread neglect of women's reproductive issues within applied psychology. Evidence of this can be seen by the fact that in spite of the rapid development of health psychology, few works in this area deal with miscarriage (Travis, 1988; McGuire, 1991).

In summary, until recently, miscarriage has been largely ignored by psychologists, who have left the field to obstetricians, gynaecologists and nurses, despite the fact that miscarriages have psychological as well as medical implications. This non-treatment continues even in some widely quoted works devoted to the psychology of pregnancy (Ballou, 1978; Bibring, 1959). This is surprising in view of the fact that many writers agree that mothering and reproducing are central features which shape women's lives, and that pregnancy and childbirth are major landmarks in a woman's psychological and sexual development (Deutsch 1945; Kitzinger, 1983; 1987; Llewelyn & Osborne, 1990). It is even more surprising in view of the fact that spontaneous abortion is the most common complication of pregnancy (Liddell, Pattison, & Zanderigo, 1991).

Spontaneous abortion or miscarriage is defined as an involuntary pregnancy loss occurring in the first 28 weeks of gestation. A more comprehensive review of definitions and incidence of spontaneous abortion is provided in Chapter II. The consensual figure is that between 15% and 20% of all pregnancies end in miscarriage (Oakley et al., 1990; Pizer & Palinski, 1981; Reader, 1989). However, this figure does not include subclinical losses. Although these early miscarriages may not be confirmed medically or always recognized as such by the pregnant woman, (Chen, 1986; Smith, 1988) the fact remains that miscarriage is a widely occurring phenomenon.

Miscarriage, then, by virtue of its commonality, can be termed a normal part of human existence (Oakley et al., 1990). And yet miscarriage does not rate a mention in a standard text on developmental psychology such as Santrock and Bartlett's (1986) work. In contrast, Callahan, Brasted and Granados (1983), in their work on non-normative life events explored through a developmental psychological framework, view miscarriage as a disruptive and stressful event emotionally for the family. Day and Hooks (1987) concur that miscarriage is a potentially disruptive stressor event which is generally overlooked. Research on other kinds of stressful life events has been of practical value and clinical utility. Finding out how individuals perceive environmental events which have altered their lives can lead to greater knowledge about particular stressful life events, and ultimately, to more effective therapy and counselling.

The development of research on spontaneous abortion will be reviewed in Chapter III. Here it is briefly summarised to illustrate the theoretical framework from which the present study developed.

Early research tended to examine women who miscarried from a psychodynamic perspective. It strove to find out what was deficient in women who had failed to achieve normal biological



goals. Later research has tended to focus on women's reactions to miscarriage and to compare the subsequent grieving processes with the grieving processes subsequent to other forms of pregnancy loss or reproductive problems. Miscarriage is thus frequently conceptualized as forming part of a continuum of pregnancy loss which can encompass infertility, spontaneous abortion, therapeutic abortion, stillbirth, neo-natal death and even Sudden infant death syndrome. However, while some studies have shown there can be important similarities in how women react to different forms of reproductive loss, others have shown that there are significant differences. Thus it may be unwise to lump superficially similar phenomena together for study under the umbrella of pregnancy loss. This exploratory study seeks to ascertain whether miscarriage is perceived as a stressful life event and whether it has unique properties which might differentiate it from other life events.

The present study, which is a partial replication of Madden's (1988) study, developed from an interest in women's emotional reactions and cognitive processes subsequent to miscarriage. As Madden pointed out in the rationale for her study, only very seldom can a medical cause be found for miscarriage (Reader, 1989; Cuthbert & Van Eden Long, 1987; Oakley et al., 1990). While this may occur sometimes in a stillbirth where a normally healthy woman aborts a normally healthy baby, it is far more likely with a later pregnancy loss that a medical reason will be found to account for the loss. Therefore, a woman who aborts in the late second or third trimester may make qualitatively different attributions from those made by a woman who miscarries earlier. It follows from this that the grief processes and level of subsequent psychological adjustment of the latter may differ in some significant way.

Researchers in the area of the field of miscarriage concur that this is an area where myths and speculation abound as to the actual precipitating causes of miscarriage. And as Callahan et

al. comment: "old wives' tales have sprung up to fill in the etiological void," (Callahan et al., 1983, p. 147).

The present study, then, is an exploration of the attributions made by a sample of women who have miscarried, and the relationship of these to their psychological well-being.

## CHAPTER II

### MISCARRIAGE : DEFINITIONS, EPIDEMIOLOGY, ETIOLOGY

The focus of this chapter includes the definitions, incidence and suspected etiology of miscarriage. Since the present study investigates women's attributions of causality subsequent to spontaneous abortion, it is important to present the available factual information in order to compare conclusions later. In addition, as has already been observed, miscarriage is an area where myths and speculation are rife. It is thus important to look at what actually occurs in miscarriage.

#### A. DEFINITIONS

##### **Spontaneous abortion**

The term abortion designates a pregnancy that has terminated spontaneously prior to the period of foetal viability. In the present study the terms abortion and spontaneous abortion are used synonymously. An elective or therapeutic abortion is usually referred to as a termination. In the United States the qualifying criteria for a spontaneous abortion includes up to 20 completed weeks of gestation or a foetal weight of approximately 500 grams (Clark, 1979; Callahan et al., 1983). In New Zealand and England the term spontaneous abortion is used for any foetal death occurring up to 28 weeks gestation, after which time a foetal death is termed a stillbirth (Smith, 1988). The term intra-uterine foetal death is used in New Zealand hospitals to refer to pregnancy losses between 20 and 28 weeks. However, the terms miscarriage and spontaneous abortion still have currency medically and socially.

##### **Habitual/recurrent abortion, primary/secondary abortion**

The term habitual or recurrent abortion is likely to be employed when a woman has three consecutive spontaneous abortions (Clark, 1979; Stirrat, 1990). The term primary abortion will be used to describe her situation if she has never had a live child, and secondary abortion if she has (Stray-Pedersen & Stray-Pedersen, 1984; Stirrat, 1990).

### **Ectopic pregnancy**

Some writers do not subsume ectopic pregnancy under the rubric of spontaneous abortion because of the difference in medical processes and outcomes. However, since this is considered another case of early pregnancy loss, this will be included in the present study.

An ectopic pregnancy is one which grows outside the womb, usually, but not always, in the fallopian tubes (Mackay, Beischer, Cox, & Wood, 1983). Whereas the outcome of a threatened spontaneous abortion may be in doubt or a pregnancy can be saved, this is not the case with an ectopic pregnancy. The precise incidence is difficult to determine, but may be about once in every hundred clinically recognizable pregnancies (Mackay et al., 1983). There is argument about whether this rate may be increasing due to both the increased usage of intra-uterine contraceptive devices and also the higher incidence of sexually transmitted diseases. Both of these can cause pelvic infections which can damage the fallopian tubes. Scar tissue can develop which obstructs the fertilized egg's progress to the uterus (Reader, 1989; Boston Women's Health Collective, 1985).

### **B. INCIDENCE**

A consensual figure for the incidence of miscarriage is between 12% and 15 % (Stirrat, 1990). Chen (1986) and Smith (1988) both reviewed the literature and concluded that a much higher rate of loss occurs, with the majority of losses occurring subclinically during very early gestation. Many of these losses go unrecognized by women and may be masked as late periods.

### **C. ETIOLOGICAL FACTORS**

Many factors have been postulated as having a role in miscarriage. The following section will deal only with those regarded as the most substantial.

### Chromosomal abnormalities

The most common finding in early spontaneous abortions is developmental abnormalities in either the embryo, the foetus or the placenta. It is generally accepted that a large proportion of early reproductive losses are due to chromosomal abnormalities in the foetus (Chen, 1986; Mackay et al., 1983; Khong, Liddell, & Robertson, 1987). A consensual figure cited in most studies is 50% (Glass & Golbus, 1978; Smith 1988; Poland, Miller, Jones, & Trimble, 1977). Abnormalities may be structural, or more commonly, numerical. Typically, the more gestationally mature the abortion, the smaller the likelihood of chromosomal abnormality (Alberman, Elliott, Creasy, & Dhadial, 1975). The majority of spontaneous abortions occurs between eight and twelve weeks of gestation (Smith, 1988).

### Infections

Maternal infections which can cross the placenta and affect the developing embryo or foetus have been implicated in spontaneous abortions (Chen, 1986; Affonso & Giles, 1979). Well-known examples are rubella and listeria. The Stray-Pedersens (1984) found cases of listeria in their study, and in 1993 two directors of a Nelson mussels factory were charged with manslaughter when twins were born four and a half months prematurely and listeria was found in maternal and placental tissue (Brett, 1993). Cytomegalovirus (CMV), a virus which causes an influenza-like illness has been implicated in miscarriage, and according to Reader, (1989) a method of immunisation will probably be available in the future to women and girls. It would appear to be more influential in causing sporadic, rather than recurrent abortions (Clark, 1979; Glass & Golbus, 1978). Genital herpes is also a viral infection which can cause miscarriage if contracted early in pregnancy (Glass & Golbus, 1978; Reader, 1989) as can chickenpox, measles, mumps and influenza (Reader, 1989). The organism toxoplasma can cause an infection called toxoplasmosis which is usually caught by humans eating raw meat, or sometimes from infected cats. The

parasite can invade the placenta and be transmitted to the foetus (Affonso & Giles, 1979; Reader, 1989).

Generally, it is the extremely high temperature and the degree of severity of the infection which cause miscarriage. This applies to the above infections and also severe kidney and liver infections.

Mycoplasma and ureaplasma are organisms frequently found in cervical swabs which can be responsible for non-specific urethritis and have been implicated in spontaneous abortions (Pizer & Palinski 1981; Reader 1989). Glass and Golbus (1978) however consider that at this point only the findings from the animal studies have been conducted soundly, in methodological terms.

### Drugs

It is rare for drugs to directly cause miscarriage, However, because of findings that cigarette smoking and alcohol consumption can be harmful during pregnancy, women are generally advised to avoid these and, in fact, all drugs when pregnant. Anaesthetics taken by pregnant women have been implicated in spontaneous abortions and conflicting evidence exists about whether an increased risk of miscarriages occurs in women exposed to anaesthetics through their employment or that of their husbands. These include female anaesthetists, the wives of male anaesthetists, theatre attendants (Borg & Lasker, 1982; Reader 1989; Oakley et al., 1990). Highly toxic drugs used in cancer treatments are known to cause miscarriage (Reader, 1989; Oakley et al., 1990).

### Chemicals

Evidence pointing to pesticides, chemicals and levels of radiation pregnant women are exposed to as abortifacient is still equivocal (Reader, 1989; Oakley et al., 1990). Kline, Stein, Strobino, Susser, and Warburton (1977) report that paternal exposure to teratogenic agents such as vinyl chloride



can cause spontaneous abortions. These authors view spontaneous abortions as a screening device after reviewing the incidence of chromosomal abnormalities in both spontaneous and induced abortions, perinatal deaths, and live births. They also view systematic inspection of what they term 'fetal wastage' as an important way of monitoring teratogens in the environment, a view echoed by Poland and Lowry (1974). Borg and Lasker (1982) report how non-professionals lobbied the American Congress and stopped the use of 245-T after unusually high levels of miscarriage and stillbirth were experienced in several communities subsequent to widespread spraying.

#### **Exposure to X-rays, visual display units**

Although animal studies have indicated irradiation can cause chromosomal defects and higher rates of spontaneous abortion, hard data is lacking in this area. However, most authorities advise pregnant women to avoid X-rays (Oakley et al., 1990; Reader, 1989). Again conflicting findings about exposure to VDUs exist. Oakley et al., (1990) report on a recent American study conducted by Goldhaber, Polen and Hiatt (1988), (cited Oakley et al. 1990, p.61) reporting increased incidence of miscarriage in women who spent over 20 hours per week at a computer. However the authors cautioned other factors might have been involved. Lead aprons are often worn by pregnant women exposed to such units.

#### **Maternal uterine abnormalities**

The presence of maternal uterine abnormalities does not necessarily preclude viable pregnancies, but they have repeatedly been implicated as causal agents in spontaneous abortion (Stray-Pedersen & Stray-Pedersen, 1984; Glass & Golbus, 1978). Factors such as abnormal shape of the uterus, uterine myomas, intrauterine adhesions and fibroids can cause miscarriage (Clark, 1979; Glass & Golbus, 1978). A weakness in the cervix, usually known as cervical incompetence, is a frequent cause of miscarriage after the fourth month of

pregnancy when the increasing pressure on the cervix may cause it to open early, thus expelling its contents (Reader, 1989; Glass & Golbus, 1978).

### **Anti-phospholipid antibodies**

Research has emerged indicating that the presence of anti-phospholipid antibodies may be present in women who suffer recurrent miscarriage. A clinical trial is at present in progress at National Women's Hospital in Auckland where sixty women who have experienced recurrent abortions and who have these antibodies are being treated with aspirin (Welsh, 1993). Mishell (1992) comments that there is as yet no evidence that aspirin is more effective than a placebo.

### **Immunological factors**

In recent years investigation into immunological factors in recurrent spontaneous abortion has been increasing. Human tissue types contain human lymphocytic antigens. It appears that a pregnancy is less likely to be aborted if the foetal and maternal HLA antigens are dissimilar. This appears to be necessary for the mother to stimulate a special response which allows her body to accept the foreign material. If the paternal and maternal HLA antigens are similar, the mother and foetus will have similar antigens and this appears to prevent the protective reaction by the mother which occurs when more incompatible antigens are present (Chen, 1986; Beer, Quebbeman, Ayers, & Haines, 1981). Some success has been reported when women have been injected with paternal lymphocytes (Chen, 1986; Glass & Golbus, 1978) but this practice is still regarded as experimental.

In contrast, dissimilarities between the male and female have been cited as contributing to spontaneous abortion. It appears that some women with antibodies against sperm conceive less often and abort more often (Beer et al., 1981).



**Hormonal factors**

The role of hormonal factors in maintaining pregnancies is the subject of a long-standing debate. Oestrogen and progesterone have both been prescribed to women with a history of spontaneous abortions. Oestrogen therapy was discontinued after a high incidence of vaginal cancer was found in the daughters of women who had been treated with synthetic oestrogens (Reader, 1989; Borg & Lasker, 1982). Inadequate progesterone production is termed corpus-luteum deficiency because the hormone derives from the corpus luteum. When insufficiency is suspected, diagnosis is made by blood and/or urine assay or biopsy of the endometrium when the woman is not pregnant. Although low progesterone levels have been associated both with recurrent pregnancy loss and chromosomal abnormalities, no consensus has been reached as to whether progesterone treatment is more effective than placebo treatments. Some evidence exists that progestogens are teratogenic (Glass & Golbus, 1978; Reader, 1989).

**Other medical problems**

Diabetes has been cited in the etiology of miscarriage, (Reader, 1989; Affonso & Giles, 1979). Thyroid problems and sickle cell anaemia can also increase a woman's chances of aborting spontaneously. It is important that medical conditions such as these be monitored before and during pregnancy to maximise successful outcomes (Affonso & Giles 1979; Reader, 1989).

**Multiple pregnancy, maternal age**

The situation of multiple pregnancy increases the likelihood of spontaneous abortion (Reader, 1989; Smith, 1988). In adolescent pregnancies, the risks are also increased (Smith, Weinman, & Malinak, 1984). Research relating to higher maternal age as a variable associated with miscarriage has been reviewed by Shapiro (1989) and found to be inconclusive.

### Paternal factors

Little is known about the paternal contribution to miscarriage. Abnormal sperm morphology has been implicated as a cause in some losses and as mentioned above, paternal exposure to some noxious chemicals and anaesthesia is linked with pregnancy loss. However there is little research in this area. Some recent research suggests that recurrent miscarriage may be a partner-specific condition (Reginald et al., 1987). In general, the father's contribution is rarely mentioned in the literature.

### Psychological influences

In the decades when the psychoanalytic orientation dominated psychology, studies of obstetric and gynaecologic disorders sought repeatedly to find a psychological basis for medical problems. In one early report zealous obstetricians commented that : "Already most alert practitioners recognize that a large proportion of women seeking aid for *female trouble* are instead *troubled females*," [authors' italics] (Mandy, Mandy, Farkas, Scher & Kaiser, 1950, p. 605). In their investigation of women with a large variety of 'pelvic psychosomatic disorders' (including miscarriage) the authors report that "the only fairly consistent denominator observed by us has been the immature, dependent personality of the patient." (Mandy et al., 1950, p.608-9). This is a viewpoint echoed by Mann, (1956) who describes the 'ego defect' which makes women subject to recurrent abortions.

Mann (1956; 1959) describes two studies of recurrent aborters who were psychiatrically evaluated, and followed through their pregnancies. Interestingly, a large proportion of women in both studies had babies successfully, which gave some support to Mann's point that supportive psychotherapy was as good a therapy as any. However, this result would have been more conclusive had there been a control group. Mann commented on the relative similarity in personality organization of the primary and secondary aborters. He viewed these women as being enmeshed

with or overly dependent on their mothers, subject to paternal deprivation, and unable to relate adequately to their husbands. In the course of therapy with these immature patients, the doctor's role was to act as a "father-substitute" (Mann, 1959, p.456) and help the woman develop into an adult individual capable of carrying out normal womanly roles.

Grimm (1962) a colleague of Mann's, continued his research project and studied a group of 61 recurrent aborters and compared them to a group of 35 women with no abortion history. Patients were subjected to a battery of psychological tests, including the Rorschach, Wechsler-Bellevue, and TAT. Ten test indicators were found to distinguish between the groups. Some of the features which reportedly characterized the abortion-prone women were poorer emotional control, greater dependency behaviours, and more proneness to guilt feelings. Grimm concedes that these psychological variables cannot be assumed to have caused the abortions. However she also reported that 18 habitual aborters who had successful pregnancies after psychotherapy on retesting exhibited significantly changed scores in those areas which had originally distinguished them from the comparison group. Grimm neglects to consider if alterations in personality might have occurred because of the stress of repeated miscarriages. The comparison of two such groups of women with markedly different gynaecological histories appears somewhat futile. The differences reported could very likely be attributed to the trauma of undergoing repeated spontaneous abortions. In addition, because these therapists expected their patients to behave in a certain way, i.e. have dependent, narcissistic and immature personalities, it is possible that a self-fulfilling prophecy occurred and no matter how a woman behaved, her behaviour would be interpreted as neurotic. Also, because a recurrent aborter has the secondary status of a patient and is undergoing therapy in the hope of achieving a goal which has been repeatedly frustrated, she is in fact in a dependent position in relation to her therapist.

Weil and Stewart (1957) present a case study of a woman having previously experienced seven spontaneous abortions who carried to term after receiving supportive psychotherapy and monitoring of her pregnancy. Again, her personality profile corresponded to that prevalent in the literature, i.e. dependent and immature. The authors postulated that the patient served as her own 'internal control' for the purposes of the research, since they presumed that unassisted, the prognosis for her pregnancy would be poor. While it appears likely that the treatment may have contributed to the successful outcome for this woman, a case study approach such as this proves nothing. In fact even after seven successive miscarriages a woman still has some chance, even if the odds are lowered, for a successful pregnancy (Stray-Pedersen & Stray-Pedersen, 1984; Stirrat, 1990).

Berle and Javert (1954) outlined a treatment regimen of supportive therapy and pregnancy supervision which had a 92.5% success rate in the subsequent pregnancies of a group of 24 patients. However, Tupper and Weil's work in this area is more empirically oriented since these authors include control groups of recurrent aborters matched for demographic variables so that more meaningful comparisons can be made. In their 1962 study, 38 habitual aborters were randomly divided into two groups: one of which received supportive psychotherapy and one did not. In the experimental group, sixteen (84%) carried to full term successfully, with two miscarriages and one premature delivery. In the control group only five (26%) gave birth to term babies and there were thirteen spontaneous abortions and one premature delivery (Tupper & Weil, 1962).

The impetus for this study arose from earlier work, in which cases of threatened and actual abortion were studied with psychiatric evaluations of patients, examination of hormonal levels and biochemical tests carried out and fetuses examined. The findings of women who aborted and those who did not were compared, as were a group of 22 controls who went from one to nine months' gestation. The authors concluded that emotional

factors could account for differences in hormone levels and women threatening to abort appeared to benefit from psychological support and reassurance. They could not, however, state definitively what causative agent was responsible (Tupper, Moya, Stewart, Weil, & Gray, 1957). Carlson and LaBarba (1979) in a review of the literature concerning maternal emotionality during pregnancy and reproductive outcome, conclude that the pregnancy state poses enormous challenges to the adaptive capacity of the pregnant woman in physiological, psychological and social terms. They consider only the results of Tupper and Weil's 1962 study to be methodologically sound and conclude that "increased emotionality may play an influential role in the genesis of habitual abortion" (Carlson & LaBarba, 1979, p.347).

The following studies are interesting in that the women being studied are not habitual aborters. The tentative conclusions reached so far, in respect of emotionality and reproductive outcome, can only be applied to women who abort habitually, since this has been the population mostly studied.

Malmquist, Kaij, and Nilsson (1969) & Kaij, Malmquist and Nilsson, (1969) studied 84 women who had previously experienced spontaneous abortions and a control sample matched for seven relevant variables. A mailed questionnaire was sent to women investigating parental attachment, bereavement, and childhood neurotic symptoms. Loss of the father was significantly more common amongst the aborters and this difference became more striking when bereavement was combined with childhood neurotic symptoms. This research differs from previous studies in that the women are not habitual aborters per se, but parturient women with experience of at least one miscarriage.

Mandell and Wolfe (1975) in a study of conception behaviours in a group of mothers whose children had died of sudden infant death syndrome, reported that of 32 women attempting to conceive, ten (31%) had spontaneous abortions and 11 (34%) could



not conceive after a year of trying. This finding is suggestive of a relationship between psychological trauma and fertility outcomes. Given the lack of knowledge about the etiology of SIDS, it is possible, but not highly feasible, to speculate that these results might be due to some medical factor in common.

Kaffman, Elizur and Harpazy (1982) describe psychosocial factors impacting on pregnancy outcomes in a small Israeli kibbutz community. When a relatively large number of pregnancies (seven of a total of 13 confirmed pregnancies) ended in miscarriage, a collective belief gradually took hold. Members of the kibbutz became convinced that some specific environmental factor was responsible. This possibility was eliminated by a team of experts who searched exhaustively for evidence of chemical contamination of water, air, household and agricultural toxins and found nothing. The widespread conviction that something was responsible persisted, however, and was reported as being considered a 'curse' by the authors. Couples contemplating pregnancy began to leave the kibbutz so the Kibbutz Child and Family Clinic established an investigative team of two psychologists and a psychiatrist. Histories were taken from the 13 women who had been pregnant in the period under investigation and their data compared with other kibbutzim with similar socio-cultural conditions and medical services. It was found that the highest annual rate of miscarriage in any kibbutz was 12%. Comparing other variables such as medical and obstetric care available, the rate in this kibbutz could be expected to be around 10%. However, the miscarriage rate was in fact 54%. The six women who carried to term were multiparous, and investigations showed that the belief in a noxious influence or 'curse' was a source of high anxiety and stress for the seven nulliparous women. These women apparently expressed some relief after miscarriage when the worst they were expecting happened. The authors reported follow-up which included interviews with the women to illustrate what had happened and to dissuade them from leaving the kibbutz. Structured relaxation techniques were taught and three couples

received marital therapy. In the two year follow-up period six of the seven women who remained in the kibbutz became pregnant, and not one spontaneous abortion occurred. (The seventh woman divorced). The authors consider that this outcome supported their central hypothesis about the connection between the miscarriages and the "social climate of tension and anxiety which prevailed during the period of the pregnancy," (Kaffman et al., 1982, p. 245). Although the number of women studied in this sample is small, the scenario is highly credible especially as the authors present a persuasive analysis illustrating the belief system and how it took hold through a social psychology perspective. Because a kibbutz is a small cohesive community, composed of individuals of similar beliefs and value systems, the authors explain this fostered the development of the "psychosocial collective contagion," (Kaffman et al., 1982, p. 243). They note the phenomenon of epidemic outbreaks of psychological problems in kibbutzim, mentioning anorexia nervosa, and suicide, among others. A further element which strengthened the development of the collective belief was the fact that two authority figures became pregnant and helped to propagate the rumours.

Stray-Pedersen and Stray-Pedersen (1984) conducted a study of etiological factors in women who had experienced between three and 13 prior consecutive abortions. For the investigation of the effectiveness of 'tender-loving-care' as a treatment, they excluded women with hormonal, uterine, cervical or chromosomal abnormalities from the study. This resulted in a total of 61 couples of the original 195 under observation. The subsequent pregnancies of 37 of these women were managed with formal psychological support and specific antenatal counselling. The pregnancy success rate achieved was 86% as compared to 33% for the control group of 24 women who did not receive this specific treatment.

A recent New Zealand study replicated this finding convincingly (Liddell et al., 1990). Forty-two women who had experienced at

least three recurrent abortions were supervised through their subsequent pregnancies with a programme of formal emotional support and again the success rate was 86%. A total of 44 pregnancies were supervised, six miscarriages occurred, and for four of these there was a recognizable causal factor. A control group of nine women, who were assessed and then remained under the supervisory treatment of their GP without receiving the formal emotional support offered to the experimental group, had a successful pregnancy outcome of only 33% (three of nine).

These more recent findings are similar to those of the early study by Tupper and Weil (1962) outlined above. While the authors are reluctant to postulate about what specific psychological factor might be affecting these outcomes, the results cannot be explained by chance and stress has been mentioned as a possible contributor to miscarriage. Berle and Javert (1954) theorized that certain individuals might be predisposed to spontaneous abortions due to an increased secretion of adrenaline under stress. They suggested that this might in itself be sufficient to precipitate uterine contractions to the extent of starting premature labour and hence the process of miscarriage. Stress was postulated as a possible reason for the high incidence of miscarriage in the studies of Mandell and Wolfe and the Israeli study. Also, both these studies were not of recurrent aborters.

The preceding discussion of the etiology of miscarriage has sought to demonstrate that surprisingly few concrete findings are to hand on the subject. It is clear that many miscarriages are due to a random chance occurrence, i.e. sporadic chromosomal abnormalities. There is thus, statistically, a high chance of spontaneous cure if a couple persist in pregnancy attempts (Liddell et al., 1990; Stirrat, 1990). Given the success of several studies in which hormonal or other medical treatments were not offered but psychotherapy or formal emotional support were provided instead, it is hard not to view psychological factors as potentially having an important causative role in



those miscarriages which cannot be explained as normal pregnancy wastage.

#### SUMMARY :

From this literature review it is clear that many questions are still unanswered concerning the etiology of miscarriage, and recurrent miscarriage in particular. Attempts have long been made, however, to find psychological causes. Early attempts in the psychoanalytical literature were marked by preconceived ideas about the women under investigation, a lack of empathy, and some practices and attitudes which would be ethically untenable today. As Glass and Golbus have commented: "These interpretations about the female psyche...indicate perhaps more about the authors than about their patients" (Glass & Golbus, 1978, p.262). In their search for the abortion-prone personality, these authors failed to distinguish whether personality variables were a cause of miscarriage, or the logical effect of being subject to the cumulative stress of repeated abortions.

Through the years, miscarriage has come to be taken more seriously as a stressor in itself. An increased understanding by workers in the field of the relationship of life stresses to miscarriage is evident, and Berle and Javert (1954) can be credited with suggesting that stressful life situations and events ought to be regarded as possible contributing factors.

Because the present study focuses on women's cognitions and attributions of causality subsequent to miscarriage, an exploration of etiological factors was considered important. The previous review has outlined many etiological factors postulated to have a role in miscarriage and the possibility of psychological factors was considered of special interest. The incidence of miscarriage was also outlined, and definitions were provided at some length because of the variance in terms used.

### CHAPTER III

#### REVIEW OF THE LITERATURE

This chapter seeks to give an overview of the treatment of pregnancy loss in the literature, and to discuss those theoretical issues which are considered relevant to the psychology of miscarriage. The principal aims are to anchor miscarriage in a context; to identify those features which make it different from or similar to other life events; and to present the findings of major studies which have explored miscarriage. The studies which relate directly to the formulation of the present research will be presented in Chapter IV.

In comparison to other life events, there have been few systematic studies of the psychological sequelae of spontaneous abortion. However, a consistent observation in the anecdotal literature has been that a wide range of negative emotional symptoms may occur subsequent to miscarriage (Pizer & Palinski, 1981; Borg & Lasker, 1982; Hey, Itzin, Saunders, & Speakman, 1989; Cuthbert & Van Eden Long, 1987; Oakley et al., 1990). Although these works are essentially collections of anecdotal reports about women's experiences of pregnancy loss, they nevertheless provide information about psychosocial, emotional, and physiological facets of miscarriage.

Much of the psychological literature is of an experiential (Reinharz, 1988) or case study nature, documenting reactions to miscarriage which range from delayed or 'pathological' grief (Corney & Horton, 1974; Stack, 1980; 1984; Herz, 1984; Ivker, 1985; Hardin & Urbanus, 1986; Leon, 1986b; McAll & Wilson, 1987) to bulimia (Ford & Dolan, 1989) and post-traumatic stress disorder (Moscarello, 1989).

The case study literature describes psychological and some psychopathological sequelae of miscarriage. The case studies are of clinical interest because they may alert a clinician to

potential outcomes subsequent to miscarriage which they may not have considered (Hall, Beresford, & Quinones, 1987). They may also help to generate hypotheses as a spur to conduct more controlled and objective research, as Corney and Horton's (1974) case study of pathological grief subsequent to miscarriage led Peppers and Knapp (1980) to undertake their much quoted study of reactions to pregnancy loss.

However, in terms of broadening knowledge about miscarriage, empirical studies are perhaps the most useful because data collected from systematically conducted studies can generalize to other populations of women who have miscarried, and increase knowledge about psychological reactions to this common event (Day & Hooks, 1987; Friedman & Gath, 1989).

#### REACTIONS TO PREGNANCY LOSS : TRADITIONAL VIEWS

Deutsch (1945) in her pioneering work on the psychology of women, was highly dismissive of the reality of the grief associated with pregnancy loss. She maintained that reactions to pregnancy loss were not genuine grief reactions, but rather the outcome of the nonfulfillment of a wish fantasy. It is only relatively recently that stillbirth has been acknowledged to be a major event and accorded status similar to other bereavements. Because of this, the overwhelming tendency in the perinatal loss literature has been to focus on stillbirth and neonatal loss and to deny the legitimacy of miscarriage as a life event. Ballou (1978) in her discussion of the psychology of pregnancy, comments that while an early miscarriage might occasion some disappointment, a later loss will involve more of a "mourning process" (Ballou, 1978, p.108). The trend apparent in the literature of attaching more importance to the phenomenon of stillbirth is an encouraging one, however, as formerly there was a tendency to discount the reality of any perinatal loss. Women were thus discouraged from grieving appropriately and carrying out mourning rituals. Increasingly, as research began to concentrate on women's grief reactions to perinatal loss, researchers concluded that pregnancy loss occasioned similar

grief reactions to other bereavement situations (Cullberg, 1971; Wolff, Nielson & Schiller, 1970) and medical personnel began to realize the appropriateness of mourning rituals and encouraged parents to have contact with and mementos of their dead infants. (Condon, 1986; 1987; Lewis & Page, 1978; Lewis, 1979a; Lake, Knuppel, Murphy, & Johnson, 1983).

#### **STUDIES ON WOMEN'S REACTIONS TO PREGNANCY LOSS**

Several key studies which illustrate reactions to late spontaneous abortion will be reviewed here, for two reasons. Firstly they show the development in the literature on pregnancy loss. Secondly, because of the interface between miscarriage and stillbirth due to different definitional criteria discussed in Chapter II, it is impossible to consider miscarriage and stillbirth as discrete phenomena.

Wolff et al. (1970) interviewed 50 women subsequent to a stillbirth (exact gestational age unspecified) and reported that all reacted with a typical grief reaction, rather than a clinical depression. Forty women were followed over a three-year period. Cullberg (1971) made a similar finding. He interviewed 56 women one to two years after their stillbirth (gestational age unspecified) and concluded that 19 had experienced pathological grief reactions including psychosis, depression, anxiety attacks and phobias. Rowe et al. (1978) reported that six of 26 mothers interviewed after perinatal loss developed prolonged grief reactions which lasted between 12 and 20 months. These were more common for women when one of two twins survived or when a woman became pregnant less than five months following the perinatal death. Of the seven stillbirths in the sample, gestational age was stated only as being greater than 20 weeks.

Simon, Rothman, Goff, and Senturia (1969) pursuing an earlier study of psychological conflicts in women subsequent to induced abortion, compared 32 women who had spontaneous abortions with 46 women who had induced abortions. The women participated in

a semi-structured interview and completed a battery of tests, including the MMPI.

The authors assigned psychiatric diagnoses to 63% of the spontaneous abortion sample and to 70% of the elective abortion sample. In the spontaneous abortion group 15 women (47%) were diagnosed as having neurotic reactions, five (16%) as personality trait disturbances. In the elective abortion sample, 33% were diagnosed as having a personality trait disturbance, 15% a psychotic or schizophrenic reaction and 15% a neurotic reaction. In fact, two-thirds of the induced abortion sample as compared to none of the spontaneous abortion sample had a diagnosable psychiatric condition prior to the abortion.

It is hard to view these findings as relevant today for several reasons. One is the socio-political context: termination of pregnancy in 1969 was a highly emotive subject, and the behaviour of a woman seeking a termination was probably viewed as pathological in itself. The authors were convinced that sadomasochistic conflicts and a woman's rejection of her feminine biological role were the important factors leading her to reject her foetus, in the case of both samples. Their preconceived ideas about the personality of the woman who aborts spontaneously are derived from the body of work which has been criticised earlier in Chapter II. In the case of women in the induced abortion sample, the authors commented that while some women appeared to have taken a more active role in obtaining a termination, other women saw themselves in a passive role, and it was this passivity which led the authors to compare these women with women subsequent to spontaneous abortion. Simon et al. noted that the majority of their spontaneous abortion subjects reported feelings of depression at the time of the abortion and this was more marked in women whose pregnancies were planned.

Leppert and Pahlka (1984) reported on 22 patients who were given two counselling sessions after their spontaneous abortion.



Treatment was not standardized, rather the kind of counselling deemed appropriate for each couple was provided. The authors (who were obstetricians) reported that the most surprising finding was the intensity of grief reactions they saw in their patients once they perceived they had permission to express their feelings.

Another study conducted by obstetricians is that of Seibel and Graves (1980) on women's reactions to miscarriage immediately after the event. However, the ethically suspect procedure of this study raises questions which compromise the validity of the findings. Ninety-three respondents completed a self-administered questionnaire in the recovery room immediately after their dilatation and curettage (D & C). Negative feelings were reportedly far more common and nearly a quarter checked four or more adjectives describing feelings of depression.

Hutti (1986) conducted a qualitative study to elucidate the meaning two women attached to the miscarriage experience. For one respondent it was her first pregnancy, and the other was a multigravida with two prior miscarriages. Interviews were conducted utilizing an open-ended, subject-oriented interview technique. The verbatim transcripts were then analyzed with Dougherty's model of cognitive representation as the theoretical base. Hutti found that miscarriage was experienced as an extremely stressful event by both women but the meaning attached to the event differed for each woman. Hutti considered the differences in their epistemic orientations was related to the different courses of action each subject took throughout and after their miscarriage experience.

In a qualitative study conducted from a preventive nursing perspective, Wall-Haas (1985) investigated nine women's reactions to their first-trimester miscarriages and reported that reactions ranged from a sense of relief to a profound sense of loss. The author adapted Benfield's questionnaire designed for late perinatal and neonatal loss for the study (Benfield,

Leib, & Vollman, 1978). This measure elicited quantitative data about grief symptomatology. Sadness, rumination and dreaming about the lost baby, disbelief and anger were moderately problematical while in most cases eating and sleeping difficulties were not present. However, Wall-Haas commented that the richest information came from women's anecdotal remarks about the experience.

Friedman and Gath (1989) in a methodologically sound study explored the psychiatric consequences of recent spontaneous abortion. In their consecutive series of 67 subjects they found that many women displayed grief reactions typically seen following bereavement. Three resorted to suicidal behaviour. Their main conclusion was that in the four weeks subsequent to miscarriage levels of emotional distress were high. This was measured by the Present State Examination, under which criteria 48% of the women were psychiatric cases, a rate four times what could be expected in a normal population. Friedman and Gath also noted that grief symptomatology was more frequent in women with experience of repeated spontaneous abortions. Gath also observed that the risk of a depressive disorder was exacerbated for women with a history of miscarriage, and who also had no children (Gath, 1987).

Madden (1990) investigated emotional reactions to miscarriage in a sample of 65 women who had miscarried between 2 weeks and 60 weeks previously. The gestational age of the miscarriages ranged from four to 21 weeks. Respondents completed a coping measure, and the emotional impact of their spontaneous abortions was assessed by means of a semi-structured interview. In response to cue questions of what were three characteristics of miscarriage and pregnancy, 94% of responses to the miscarriage cue were negative while three quarters of respondents viewed pregnancy positively. The emotional reaction most woman described immediately after miscarriage was one of sadness. However Madden pointed out that "long-term emotional responses to miscarriages are highly variable" (Madden, 1990, p.12) and

underscored the need for outsiders to respect individuals' reactions. Madden observed that in general women appeared to come to terms with their loss relatively quickly, echoing Friedman and Gath's (1989) finding that although levels of emotional distress were high in the period immediately following miscarriage, they tended to dissipate relatively quickly.

Neugebauer (1989) as part of an ongoing study, has published findings about depressive symptomatology in women shortly after early perinatal loss. Women were interviewed by telephone at three intervals, and a group of pregnant women, and a further community sample matched with the recently miscarried sample. A comparison of the mean scores of the miscarriage group and the community control group revealed a significantly higher score on the Center for Epidemiologic Studies Depression Scale (Radloff, 1977, cited Neugebauer, 1989, p.241) in the miscarriage group, at time one, but at time two, the statistically significant difference had disappeared. (Time one was around three weeks post-miscarriage, and time two six weeks later). To explore whether the drop in depression scores came about through a change in cohort composition, analyses were performed looking at scores by women interviewed at both time points, and comparing them with those of women interviewed at only one. Neugebauer concluded that the first interview caused some unintentional therapeutic change. Women reached only at time two had a significantly higher number of symptoms than those time two women who had been interviewed previously. These findings concur with those of Friedman and Gath, in finding women are likely to exhibit depressive symptomatology shortly after miscarriage.

Jackman, McGee, and Turner (1991) studied 27 women in the year subsequent to their first-trimester miscarriage. They found a variety of negative emotions was experienced at the time of the miscarriage with psychological distress still evident several months after the event. Almost half of the sample (44%) were classified as being severely distressed, as measured by the



General Health Questionnaire. These authors suggested that in fact these figures might under-represent the proportion of women who feel emotionally disabled after miscarriage. Of women approached to participate in the study who declined, over one-third specifically cited present or anticipated distress as their reason for not participating (Jackman et al., 1991).

Madden (1986) also investigated the roles of emotional support and medical information following miscarriage. Her respondents were asked about perceived levels of support from partner, friends, family, medical staff, and level of information provided by medical staff. Depression was the primary dependent variable, and lack of partner's support emerged as an important correlate of depression. Madden concluded that the partner's support had a variety of components which were helpful for their spouses. She also provides a list of recommendations for helpers and health care providers.

Day and Hooks' (1987) study represents the first major effort to examine the psychosocial aspects of miscarriage. Specific goals were to measure the effects of individual, family, and community resources both on the level of stress experienced at the time of miscarriage and on the speed of recovery. A total of 102 respondents returned questionnaires after being randomly selected from telephone books and asked if they had recently experienced a miscarriage. The Family Adaptation and Cohesion Evaluation Scale (Olson, Portner, & Bell, 1982; cited Day & Hooks, 1987, p. 306) was used to assess personal, family and community resources. Their results demonstrated that miscarriage was experienced as a significant stressor event, and the family resource variables were the most powerful predictors of the stress level.

#### **THE RELEVANCE OF ATTACHMENT TO MISCARRIAGE**

A major reason for the non-treatment of miscarriage as a life event is because traditional attachment views hold that early in pregnancy attachment is insignificant, with the corollary

that the later the loss the greater the significance. Because of the importance of gestational age in the present study, a discussion on attachment theory follows, which endeavours to anchor miscarriage as a life event of significance.

Deutsch (1945) pioneered the study of the mother-child relationship during pregnancy. Later writers, namely Bibring (1959), and Bibring, Dwyer, Huntington, and Valenstein, (1961) continued the discussion, from a psychoanalytic perspective. However, only recently has empirical research begun to emerge as the notion of parental-foetal attachment has been perceived as a robust construct; the study and measurement of which has important implications for psychologists.

The relationship a pregnant woman develops with her baby is usually referred to in terms of bonding or attachment. Campbell and Taylor (1979) in their review of theoretical issues have provided useful definitions of these two constructs since they are often, confusingly, used interchangeably in the literature. Bonding is seen as a process which occurs post-natally, reflecting the degree of mother-infant attachment developed in the course of pregnancy and birth. Attachment, as introduced by Bowlby (Bowlby, 1958; 1969; cited Campbell & Taylor 1979, p.3) refers to the quality of the affectional tie which develops gradually during the first year after birth between infant and parents. Rubin (1975) refers to the affectional process which develops during pregnancy as the 'binding-in,' with the result being the bond that is apparent at the birth of the child.

Cranley (1981) makes the point that while the birth signals a change in the mother's relationship with her infant, it does not necessarily mark the start of the relationship as Campbell and Taylor would seem to imply. The term bonding will therefore be eschewed in this discussion because of its post-natal focus. The present study is concerned with pre-natal behaviours and processes. Therefore, the term attachment is favoured and is

used to describe the nature of the relationship a pregnant woman develops with her child.

The importance of pregnancy for the development of attachment is now widely recognized (Klaus & Kennell, 1976; Condon, 1985;1993; Cranley, 1981; Weaver & Cranley, 1983). However, Klaus & Kennell go further. In their maternal infant bonding model, a series of nine events is outlined which they consider important for the formation of a mother's attachment to her infant. Of these nine events the first three are: planning the pregnancy, confirming the pregnancy, accepting the pregnancy. Clearly the first of these events takes place before the woman is even pregnant. And the next two would commonly occur at an early stage of pregnancy. As will be demonstrated in the literature comparing grief reactions of women to early and late spontaneous abortion, and neonatal death, it is clear that while individual reactions may be highly variable, some attachment has already occurred no matter what stage the loss occurs. This provides an argument for the formation of attachment early in pregnancy, for many women, possibly even as Klaus and Kennell assert, before pregnancy is established.

Early literature on bonding and attachment issues tended to focus exclusively on mothers to the exclusion of fathers and any significant others. Recent literature has addressed this oversight (Condon, 1985; Leon, 1986a; Lewis, 1979b). However, while the validity of the father's attachment and that of the siblings is not denied, it is not discussed in detail here because the present study has chosen to focus on the mother's experience of miscarriage.

#### **GESTATIONAL AGE AND ATTACHMENT : RESEARCH ON PERINATAL LOSS**

Peppers and Knapp (1980) in a landmark paper which has been both widely praised and criticised, explored reactions to perinatal loss and included women who had experienced early spontaneous abortions in an effort to see if findings about grief reactions to perinatal loss applied to them as well. They based their

methodology on Kennell, Slyter, and Klaus' (1970) study of 20 women who had lost neonates. In this study, grief scores were derived from six key variables which included sadness, loss of appetite, inability to resume former activities, difficulty sleeping, and preoccupation with the loss. Peppers and Knapp expanded the list of variables to include among others: anger, guilt, depression and repetitive dreams of the lost child. Kennell et al. had found there was no correlation between the length of the baby's life and the overall mourning score. Peppers and Knapp made a similar finding, in that the analysis of variance of the reported grief scores for the early and late spontaneous abortion mothers, and the neonatal loss group showed little difference. However, a major criticism of the study's findings was the highly variable time period since the time of the loss which ranged from six months to 36 years.

Leppert and Pahlka (1984) commented that intensity of grief appeared to be unrelated to the gestational age of the pregnancy when first and second trimester losses were compared. However, in their sample of 22 only two were mid-trimester losses and grief was not measured in a standardized manner. As obstetricians they commented that the initial grief reactions appeared as intense as those they commonly saw subsequent to stillbirth or neonatal death.

Two separate groups of researchers have been studying the variability of parental reactions to early and late perinatal loss with a view to establishing the significance of gestational age of the infant in determining the nature of reported reactions.

Theut, Pedersen, Zaslow, and Rabinovich (1988) in a study of pregnancy subsequent to perinatal loss designed a measure (Pregnancy Outcome Questionnaire: POQ) to see whether anxiety subsequent to perinatal loss, and specific to pregnancy, occurred rather than generalized anxiety, in their study group of 25 expectant couples who had recently experienced perinatal

loss. The pregnancy losses experienced comprised 16 miscarriages, seven stillbirths, and two neonatal deaths. The comparison group comprised 31 newly-expectant couples. A depression and anxiety measure were also used. Only the POQ was found to discriminate between the first-time pregnant mothers and the perinatal loss group. This is an important finding. During pregnancy anxiety is reportedly higher anyway, (Kumar, 1982) but this measure appears to have managed to detect and measure the anxiety specific to perinatal loss, as opposed to the pervasive generalized anxiety that can occur during pregnancy (Kumar, 1982).

Theut et al. (1989) concurrently studied bereavement reactions in the same 25 expectant couples, using the Perinatal Bereavement Scale they had designed, to measure symptoms of unresolved grief during the subsequent pregnancy. Items explore tendencies to ruminate or dream about the lost baby, anxiety about future losses and preoccupations about why the loss happened etc. The scale was completed during the eighth month of pregnancy, and six weeks postnatally. Results indicated that the late loss parents grieved more than the early loss parents, and mothers grieved more than fathers. Scores had levelled out somewhat when the scale was again administered 16 months after the birth of the viable child, but the late-loss group still maintained their higher scores (Theut, Zaslow, Rabinovich, Bartko, & Morihisa, 1990).

The authors viewed their results as evidence of the increased reality of a foetus which has quickened (i.e. the mother has felt foetal movements) citing Condon's (1985) observation that this is a landmark in the attachment process for both parents. They further noted that for the late-loss group the relationship continued after the stillbirth or neonatal death: each of the couples had contact with their infant, realized the sex of the child and had funeral or memorial services (Theut et al., 1989). The authors speculated that because parents in the early loss group did not have these post-natal experiences, the birth of



their subsequent child would help them resolve their grief more easily. In comparing their results with those of Peppers and Knapp (1980), Theut et al. concluded that while both studies established the incongruence of parental attachment and grieving reactions, their results in terms of gestational age were different. They speculated that this might be due to the fact that for some of Peppers and Knapp's respondents the loss was in the very remote past, and postulate that bereavement for early and late loss might become indistinguishable as time passed (Theut et al., 1989).

Lasker and Toedter (1991) in a parallel research project conducted on a larger scale, designed a similar instrument (the Perinatal Grief Scale) and conducted a longitudinal study of 138 couples who had experienced miscarriage, ectopic pregnancy, stillbirth, and neonatal death. Respondents were initially interviewed at two intervals in the two years subsequent to their perinatal loss. Their results indicated that factors such as prior mental health and social support were most likely to predict scores on the Perinatal Grief Scale indicative of the absence of a pathological grief reaction. They also suggested that delayed grief responses were more likely to occur among those who had experienced multiple early losses such as miscarriage, echoing Friedman and Gath's (1989) observation regarding the cumulative effects of repeated pregnancy loss. Gestational age of pregnancy in this study was less important as a predictor of pathological outcomes than were the individual's previous level of depression and perceived level of family support: this is a similar observation to that made by Day and Hooks (1987).

Goldbach, Dunn, Toedter and Lasker's (1991) data on the effects of gestational age and gender on grief subsequent to pregnancy loss is derived from the same longitudinal study. In the study, 138 women were interviewed between six and eight weeks after perinatal loss, and followed up 12 - 15 months later, and again 25 - 29 months post-loss. Gestational age was found to be an

important variable affecting attachment and grief. However, the authors stress that the needs of those who miscarry early should not go unrecognized or be invalidated.

DeFrain (1991) reviews ten important questions commonly asked by families recovering from spontaneous abortion, stillbirth and Sudden infant death syndrome, bringing together findings from a series of surveys on parents' responses to these life events. Although DeFrain has amassed an impressive amount of data from approximately 850 respondents concerning the psychological and emotional sequelae of these events, and a wealth of qualitative data, little is presented in the way of quantitative research findings. Therefore, factors such as gestational age and grief, for example, cannot be compared. Nor can extrapolations about processes such as attributions be made which would be highly useful for the present study.

Lovell (1983) in a qualitative study, interviewed 22 women to identify what external factors, such as the actions of others, might affect grief reactions. She found that others tended to view perinatal loss as being more serious the later the loss. Thus some women who grieved intensely after an early loss felt ignored. Also, women who grieved after the loss of a defective baby were made to feel deviant. Lovell acknowledged the variability of grieving reactions in her sample, and contended that the context of the loss for the woman, and her subjective perception of it, determined the quality of her grief.

Hutti (1986) in her literature review comments that the majority of studies have been based on the classic grief models of Lindemann (1944, cited Hutti, 1986, p. 372) and Parkes (1965, cited Hutti, 1986, p.372). Hutti questions the utility of applying models which derive from reactions to the loss of significant adults to the situation of perinatal loss as does Niven (1992). It appears from Hutti's own research and qualitative research conducted by others (Lovell, 1983; Conway & Valentine, 1987) that important individual contextual factors



may shape women's reactions to perinatal loss. In addition, Niven (1992) suggests that reproductive losses frequently entail traumatic birth experiences which can both provoke post-traumatic stress disorders, and interfere with the grief process. Niven further suggests that parents who have no baby to grieve over, (i.e. parents after early losses) may experience a sense of unreality which complicates the grief process. Niven equates this situation with that of the families of victims of disasters such as Lockerbie, where bodies are never recovered (Niven, 1992).

#### **SUMMARY:**

This literature review has demonstrated that miscarriage is experienced as traumatic and stressful by many women. Attempts to quantify grieving reactions and in particular correlate these with gestational age of the pregnancy are ongoing. Much of the early literature was of a case study nature, but recently more well conducted qualitative studies have emerged, yielding rich data on the emotional effects of miscarriage (Lovell, 1983; Hutti, 1987; Conway & Valentine, 1987). And increasingly, attempts are being made to gather quantitative data in this area in order to generate conclusions about the impact of miscarriage as a life event (Madden, 1986; 1990; Gath, 1987; Friedman & Gath, 1989; Day & Hooks, 1987; Jackman et al., 1991). The fact that instruments specific to perinatal loss have been designed is an indication of the progress that has been made in this area.

#### CHAPTER IV

##### DEVELOPMENT OF THE PRESENT STUDY

This chapter outlines the development of the present study. The principal focus of the study of spontaneous abortion to date as shown in Chapter III has been grieving reactions by parents. An under-researched area, and one which might relate to grieving reactions, concerns the attributions made subsequent to miscarriage. Theut et al. (1989) who developed the Perinatal Bereavement Scale, clearly viewed attributions as significant in the grief process. Three of the 26 scale items relate to aspects of self-blame, two to other blame, and two to causal analysis of the event. It is disappointing that the results are presented as aggregate scores, as analyzing individual item responses more closely may well have yielded interesting data about the relationship of attributions to the grieving process subsequent to perinatal loss.

Because of the nature of miscarriage, clearly defined causal explanations are often unavailable. Myths proliferate surrounding the causes, which may in turn substantially affect information-processing and attributions concerning causality by the women who miscarry (Madden, 1988; Callahan et al., 1983). Attribution research demonstrates that the quality of attributions made after different life events may have a significant relationship to psychological outcomes. Those studies which have explored women's attributions subsequent to pregnancy loss will be reviewed below.

Because the present study is conceptualized as a partial replication of Madden's (1988) study investigating women's attributions subsequent to miscarriage, this study will be reviewed and the development of the present study explained.

## ATTRIBUTIONS SUBSEQUENT TO PREGNANCY LOSS : REVIEW OF THE RESEARCH

A consistent finding by several researchers has been that the need to find a reason for perinatal loss is a major concern for mothers (Seibel & Graves, 1980; Friedman, 1989; Hamilton, 1989; Dunn, Goldbach, Lasker, & Toedter, 1991).

Seibel and Graves (1980) reported that the 93 women in their sample were predominantly concerned with why their miscarriage occurred. In answer to the question "what do you think happened" (to cause the miscarriage) 36.6% replied that they didn't know, and 18.3% gave no response in this self-administered questionnaire. Of those women who did offer some explanation, 19.4% viewed hard work or heavy lifting as responsible. Nearly 10% attributed the miscarriage to a medical problem, 16% to trauma, nervousness, and pressure, 7.5% attributed it to sexual intercourse prior to the abortion, and interestingly, 5.4% held the child's father responsible, although reasons for this were not specified.

Baker and Quinkert (1983) who investigated women's reactions to a variety of reproductive problems, noted that few respondents blamed themselves, (7%) and some hated themselves (2%). The authors noted that those who tended to blame themselves were mainly the women who had miscarried, and the women who had unplanned pregnancies, with circumstances such that it appeared they were responsible (Baker & Quinkert, 1983).

Giles (1970) in a study of women who had undergone recent stillbirths reported that only 16 of the 40 women gave an opinion when asked about reasons for the event. The attributions were highly varied, and included fate, punishment, infection during pregnancy, the doctor, and minor accidents. One woman viewed her recent experience of "being scared by a drunken man" as responsible, another cited her smoking behaviour, and another her failure to take her iron tablets.

Dunn et al. (1991) have reported attributional findings from their ongoing study of pregnancy loss. Their sample of 138 women, and 56 of their partners were interviewed two months post loss, and again between one and two years later. They were asked why they thought the loss had occurred, and whether they had received a medical explanation. Dunn et al. broke down the responses into four categories, blaming the mother, physical problems with the mother or foetus, fate, and no explanation given. Physicians' explanations for the loss (as reported by the respondents) blamed the mother in only two instances as compared to 43 instances in parents' (mainly mothers') explanations. Closer examination of the data within the mother-blame category showed behavioural rather than characterological attributions were being made. And the explanations given by doctors were more likely to be related to the gestational age of the pregnancy. When a medical explanation was available, most parents relied on this, although a sizable number (55 out of 193 respondents) adopted a second explanation as well. This led Dunn and colleagues to conclude that over time, parents construct their own theories to account for the event. Utilizing physicians' accounts is innovative, and could contribute much to study in this area. However, whether or not parents' accounts of physicians' explanations should be relied on is uncertain. Given phenomena such as self-perception bias, it is possible to speculate that physicians might blame mothers more, but subsequent to a stressful loss, parents selectively respond to only favourable information.

#### **MADDEN'S (1988) STUDY**

Madden (1988) has conducted the most specific investigation of attributions subsequent to spontaneous abortion to date with a sample of 65 women who had miscarried between two and sixty weeks previously. Madden's first hypothesis was that women who attributed their miscarriage to characterological features would cope less well (although depression was the dependent variable in this study). The theoretical basis for this hypothesis was Janoff-Bulman's established finding that characterological self-

blame is related to poorer outcomes for victims of some stressful life events (Janoff-Bulman, 1979; Janoff-Bulman & Schwartzberg, 1991).

Madden's second hypothesis was that: "Victims who feel they can take action to avoid another miscarriage cope better than those who do not" (Madden, 1988, p.115). The basis for this hypothesis was literature on learned helplessness and internal and external loci of control, the principal tenet of which is that some degree of perceived control is adaptive (Abramson, Seligman, & Teasdale, 1978; Lau, 1982; Taylor, 1983).

Madden's third hypothesis was that victims who attributed their loss to others would "cope less well than those who do not", (Madden, 1988, p.115). The theoretical basis for this hypothesis is the finding that making attributions of blame to others subsequent to traumatic life events is associated with maladaptive outcomes (Bulman & Wortman, 1977; Madden & Janoff-Bulman, 1981).

Madden's findings revealed that while 49% did view themselves as responsible, women rarely attributed their miscarriage to characterological features. Women were more likely to attribute responsibility to their physical characteristics and to behaviours engaged in rather than to personality characteristics, a similar finding to that made by Dunn et al. (1991).

The second hypothesis was not supported. Instead Madden found that feeling one could take action to avoid future miscarriage was associated with depression.

The third hypothesis was supported, and the husband was the most likely to feature when attributions of responsibility were made to others. Blame of husband was positively associated with depression, confirming previous findings relating other-blaming to poorer outcomes. However the suggestion of a poor marital

relationship may be a confound here, as this might predispose a woman to depression.

The literature cited above suggests that finding a reason in the wake of perinatal loss is a concern to some mothers. It is clear that attributional processes are engaged in virtually immediately, since Seibel and Graves' participants completed their questionnaires in the recovery room immediately after their D and C, and Giles' participants were interviewed while still hospitalized. It is clearly important at a later stage, since Friedman's participants were interviewed at four weeks post hospital discharge, and Dunn et al.'s respondents were first interviewed two months after the loss. For Madden's participants the time elapsed since the miscarriage was up to 60 weeks. Dunn et al. (1991) report that attributions are constant and explanations are viewed as important even when measured up to two years post-loss.

#### **NATURE OF ATTRIBUTIONS SUBSEQUENT TO PREGNANCY LOSS :**

##### **Attributions to self**

From the literature cited above, it is clear that many women engage in self-blame/and or attributions of responsibility to themselves, and in particular for their behaviours during pregnancy. Whether attributions to characterological features are made is less certain. Both Madden (1988) and Dunn et al. (1991) found this rarely occurred. Seibel and Graves (1980) reported that 16% attributed their miscarriage to nervousness or pressure. Because they used a self-administered questionnaire rather than an interview, this is not very informative. It is feasible to conjecture that these respondents may have viewed their nervousness as a behaviour, or may have viewed themselves as nervous people.

##### **Attributions of responsibility to others**

Very little can be extrapolated from the Seibel and Graves' (1980) study because of the way the study was conducted. A structured interview would have elicited more data and more



qualitative information. For example, some degree of attribution of responsibility to others clearly occurred because the authors report that of the 55% of women who could supply an explanation, 5.4% held the child's father responsible. It is also reasonable to speculate that of the 7.5% of women who attributed the miscarriage to sexual intercourse, some might also have blamed their husbands, since sexual intercourse is presumably engaged in mutually.

Madden (1988) also found that attributions to husbands were significantly less likely than attributions to self; but if attributions of responsibility to others were made, the most likely candidate was the husband. Interestingly, of the three women who attributed responsibility to others in the Giles (1970) study, no-one blamed her husband. No attributions of responsibility to others are reported in the Dunn et al. (1991) study, except for a small number of fathers and physicians blaming mothers.

#### **Other external attributions**

Madden found that chance was attributed more responsibility than self or attributions involving others. Giles (1970) reported that of the 16 women out of 40 who offered an explanation, three attributed their stillbirth to fate. Dunn et al. (1991) found a significant difference in this regard between reported physicians' accounts, and parents attributions: physicians' accounts were more likely to vary according to the gestational age variable, and they were far more likely to attribute early losses to fate or chance.

#### **THE PRESENT STUDY : HYPOTHESES**

The studies reviewed have demonstrated an interesting variability in kinds and numbers of attributions made by women subsequent to spontaneous abortion. This variability was the spur for the development of the present study. A partial replication of Madden's study was undertaken, utilizing her interview schedule with the goal of obtaining both qualitative



and quantitative information about the attributions made by women subsequent to miscarriage. Questions raised by previous research which merit further exploration centre around external attributions to chance or fate; the inter-related areas of guilt, self-blame, and attributions to self; and attributions of responsibility to others and other-blaming. The present study seeks to replicate Madden's (1988) conclusions and accordingly, has formulated the following hypotheses:

**Hypothesis 1:**

- Attributions of responsibility to chance are more likely to occur than other attributions subsequent to miscarriage (Madden, 1988).

**Hypothesis 2:**

- Attributions of responsibility to self are more likely to involve behavioural or physical features rather than characterological ones (Madden, 1988; Dunn et al., 1991).

**Hypothesis 3:**

- Both attributions of responsibility to self, and to others, will be associated with impaired psychological well-being.

**FAILURE TO SUPPLY ATTRIBUTIONS**

Clearly, from the literature presented above, the quality and quantity of attributional behaviours engaged in merits further investigation. This could have important implications both theoretically and clinically. In addition, the inability of significant numbers of women to supply reasons for their perinatal loss is in itself a fascinating finding. In the Seibel and Graves study, 45% of the sample failed to supply reasons or said they didn't know why their miscarriage occurred. In Giles' study, 24 of the 40 women failed to supply their own explanation for the event. Similarly, Dunn et al. (1991) reported over twenty per cent of respondents could supply no explanation at all. Unfortunately, Madden (1986; 1988; 1990)

does not state how many of her respondents failed to supply explanations for their miscarriage.

Since attributional processes are cognitive, it follows that some level of information processing must be carried out before attributions are made. Perhaps many women's failure to supply attributions is simply because they subjectively perceive that they lack the factual information about or understanding of their situation necessary for the formulation of an attribution. On the other hand, as outlined in Chapter II often there is no explanation about the etiology of miscarriage. Many miscarriages are simply sporadic chance occurrences and the explanation is that there is no explanation.

#### LEVEL OF INFORMATION ABOUT MISCARRIAGE

Although Madden's interview schedule includes items probing the respondent's level of factual information about miscarriage both prior to and subsequent to the miscarriage, she does not provide summaries of this data (Madden, 1986; Madden, 1988). Anecdotal literature suggests that prior to the experience of spontaneous abortion, women in fact have little information about pregnancy loss, and do not expect it to happen to them (Pizer & Palinski, 1981; Oakley et al., 1990). Several authors have noted that provision of answers to medical questions forms an important component of follow-up health care subsequent to a spontaneous abortion (Leppert & Pahlka, 1984; Friedman, 1989; Hamilton, 1989; Bryant, 1985).

Two studies which specifically addressed the question of level of information subsequent to perinatal loss were conducted by Rowe et al. (1978), and Helstrom and Victor (1987).

Rowe et al. found in their study of 26 families who had experienced a perinatal or neonatal death between ten and 22 months previously, that 17 of the 26 mothers met predetermined criteria for having an adequate understanding of their infant's death and the risk of recurrence (Rowe et al., 1978). The

mothers were also asked about the sources of their information and their degree of satisfaction with the information provided. Understanding was evaluated as adequate if it compared with the information recorded in the patient's hospital chart.

Half of the mothers received their information only during hospitalization and were given no follow-up medical contact. The other half received information both at the time of hospitalization and during subsequent medical follow-up. Only seven of the 26 mothers interviewed were satisfied with the information they received, ten were partially satisfied and nine totally dissatisfied. A direct correlation was found between the degree of satisfaction and the mother's lack of understanding and/or the development of a pathological grief reaction.

Helstrom and Victor (1987) sought to investigate information and emotional support available in a consecutive sample of 117 women who had recently miscarried. The women anonymously completed a questionnaire before discharge from hospital, and 86 women (73%) completed a second questionnaire three weeks post discharge. Women generally reported satisfaction with their overall care and level of information received while hospitalized but tended to criticise these more later. The authors speculated that while this result might be due to an unwillingness to criticise while still in hospital, it was more probably due to the fact that post-loss informational and emotional support is very often unavailable (Day & Hooks, 1987).

Level of information, then, emerges as a significant variable in terms of the foundation of attributions with implications for psychological well-being in women who have undergone spontaneous abortions. Related to this, is Perloff's (1983) observation that perceived vulnerability to a threatening situation has a cognitive component derived from the individual's prior beliefs about risk, or in other words their level of information.

Because of the nature of spontaneous abortion, i.e. the fact it is not a subject which is frequently openly discussed, and because there simply are not medical explanations available to explain all spontaneous abortions, it appears, as the above findings have demonstrated, that women have a low level of factual information prior to their miscarriage experience. This leads to the formation of two hypotheses:

**INFORMATION HYPOTHESES:**

1. Few women will have entertained the possibility of a miscarriage occurring beforehand.
2. Women who have experience of multiple pregnancy losses will demonstrate higher levels of information at the time of the index miscarriage.

## CHAPTER V

### THE STUDY : OBJECTIVES AND INSTRUMENTS USED

#### OBJECTIVES:

The primary objective of the present study is to investigate women's attributions subsequent to miscarriage and to compare these with their current psychological well-being. Information is considered a crucial variable which may be related to the formation of attributions. The hypotheses formulated to investigate attributions and information levels have been described earlier. Secondary objectives which follow because of the exploratory nature of the study, are to investigate women's emotional reactions to miscarriage.

#### INSTRUMENTS USED:

##### A. Interview Schedule (Appendix A)

Madden's (1988) interview schedule was used, with some slight modifications, the rationale for which is discussed below.

##### 1. Non-inclusion of items

Demographic items were not included. Madden's inclusion of demographic data added little to the topic. Also, because of recruitment difficulties and the fact that two hours were set aside for each interview, the inclusion of demographic items might have been experienced as time-consuming and possibly intrusive by participants. An item on coping was also deleted since coping was not being measured in the present study. A further deletion was the item probing the respondent's partner's reaction to the miscarriage. This item was deleted as neither the marital relationship nor the partner's reaction were being investigated.

##### 2. Inclusion of new items

##### a. Confirmation of pregnancy status

In the section which investigated the circumstances surrounding the miscarriage, an extra probe was inserted so that if a woman was not hospitalized and did not undergo a D and C, she was

asked if she had undergone a pregnancy test. This was so that it could be established that she had in fact been pregnant. Certain conditions can mimic some pregnancy symptoms, eg uterine fibroids and pseudocyesis. Pseudocyesis or phantom pregnancy is a psychosomatic condition in which apparent symptoms of pregnancy are present although the woman is confirmed as non-pregnant by histological tests (Kaplan & Sadock, 1988). It was considered necessary to exclude conditions such as these, in order to be sure that the phenomenon of miscarriage was indeed the medical condition under investigation.

#### **b. Perception of blame by others**

Madden had included an item asking whether the respondent perceived her husband as blaming her for the miscarriage. An item asking about the respondent's perception of blame by friends or family was inserted to probe this aspect of self-blame further. It was reasoned that respondents might experience cognitive dissonance in talking this way about their partner, because he could be expected to be their major support person through the miscarriage experience. Also, anecdotal evidence suggests in-laws, family and friends tend to criticise a woman's behaviour after she has miscarried as part of their own search for meaning (Pizer & Palinski, 1981).

#### **c. Medical attributions**

Three items were inserted asking whether the respondent had received a medical explanation for her miscarriage, and about her reaction to the presence/absence of a medical explanation. This was considered of interest because a woman's attributions might be significantly qualitatively different if she had a medical reason to which she could attribute her miscarriage.

#### **d. Support offered at time of miscarriage**

Item 46 was inserted to find out what women who have miscarried perceive as lacks in support they were offered at the time.



### **3. Modification of items :**

Madden's item asking about self-blame was amended in the present schedule. The question was expanded to include attribution of responsibility to self as well as self-blame in order to separate out these two constructs. In addition, the wording was further amended so that the respondent could state whether she was in fact engaging in any self-blame now, or whether she had in the past at any time. The literature suggests that guilt and/or self-blame frequently accompany pregnancy loss, but these behaviours may be transitory (Stack, 1984; Helmrath & Steinitz, 1978; Harris, 1984).

The item exploring information-seeking behaviour was expanded to ask the respondent if she sought information about her own miscarriage only, and/or sought information about miscarriage in general.

### **4. Procedural changes employed with interview schedule :**

Madden (1988) used ten-point Likert scales. In the present study, seven-point scales were utilised to limit choices and provide a mid-point on the scale following that used in Major, Mueller and Hildebrandt's (1985) study of attributions subsequent to abortion.

In the questions surveying emotional reactions to miscarriage Madden supplied a list of adjectives to respondents. This was a similar procedure to that employed by Seibel and Graves (1980) who supplied their sample with a list modelled after the Multiple Affect Adjective Checklist. Because of the reported variability in emotional reactions to miscarriage (Madden 1990; Pizer & Palinski, 1981; Kirkley Best & VanDevere, 1986) it was considered this procedure might lead to demand characteristics so a list was not supplied.

### **B. RATIONALE FOR USE OF WELL-BEING MEASURE**

A measure of psychological well-being was used rather than a depression or coping measure for several reasons. Although the



present study was a partial replication, it was nevertheless exploratory. It was considered that rather than looking for the presence or absence of depression or psychiatric states as such, as other studies have done, (Madden, 1988; Friedman & Gath, 1989; Jackman et al., 1991) more interesting data might emerge taking an exploratory focus. Baker and Quinkert (1983) found in their sample of women discussing reactions to reproductive problems that the spontaneous abortion group was distinguished by the lack of positive emotional well-being reported, rather than the presence of negative emotional symptoms. Since this study wanted to investigate the nature of miscarriage as a life event, this added to the exploratory focus. In addition, most depression instruments include questions on weight gain, weight loss, sleeping patterns, interest in physical appearance, etc to establish the presence of clinical depression. It was considered that items such as these would not only be possibly offensive to respondents, but could confound results because of the nature of the life event under investigation. Changes in weight, appearance, and sleeping patterns might occur not necessarily because of the presence of clinical depression, but rather because of the psychobiological changes which accompany pregnancy and miscarriage. In addition, the women in the sample, due to conditions prevailing in the reproductive stage of their lives might be expected to have alterations to sleeping patterns due to the above factors but also due to having young children to care for on a 24 hour basis.

#### **Mental Health inventory (Appendix B)**

The Mental Health Inventory (Veit & Ware, 1983) was designed primarily as a research instrument to measure psychological well-being. The instrument was developed to improve the assessment of mental health because existing measures were not viewed as distinguishing changes in mental health from physical health (Ware, Johnston, Davies-Avery, & Brook, 1979, cited Veit & Ware, 1983, p.730). In addition the scale was conceptualized as being more sensitive to different patterns in mental health

by measuring not only psychological distress, but psychological well-being.

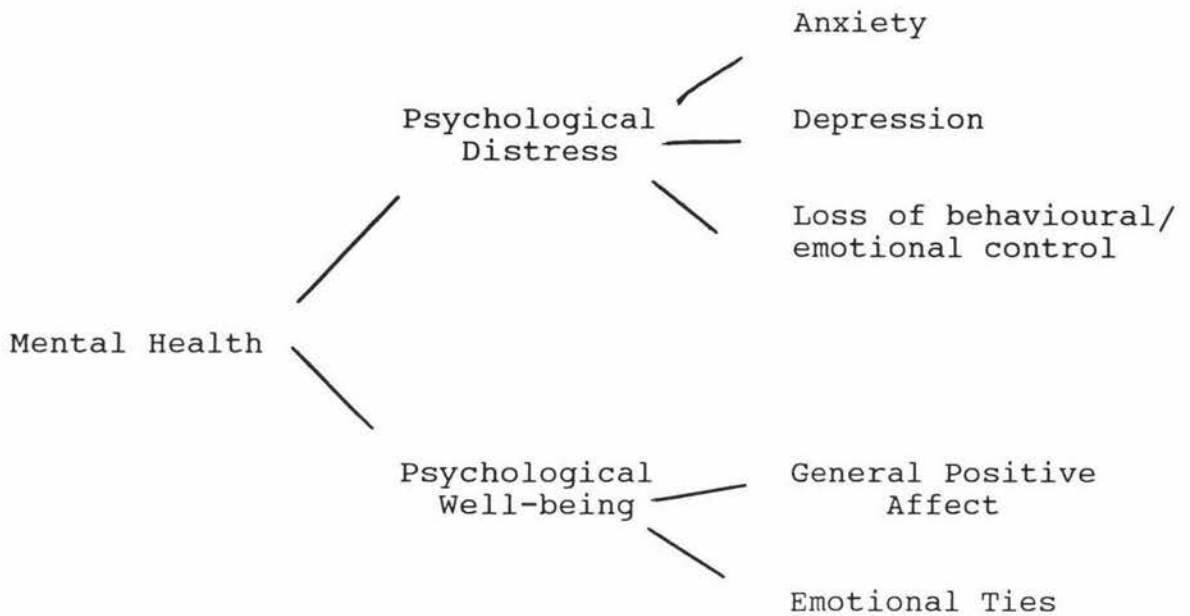


Figure 1 : Structure of the MHI (Veit & Ware, 1983, p. 740).

A figural representation of the MHI factor structure appears in Figure 1. Factor analysis of the MHI shows it contains a large mental health factor, with a hierarchical factor structure, with two middle-order factors, (psychological distress and psychological well-being) and five correlated lower order factors (anxiety, depression, emotional ties, general positive affect, and loss of behavioural emotional control). Veit and Ware suggest while it would be valid in psychometric terms to use a single summary score to categorize mental health, important information would be lost by ignoring the scores for the subscales. Instead, they recommend using the psychological distress versus well-being scores which they view as distinct (Veit & Ware, 1983).

The MHI is a self-administered questionnaire which takes approximately five minutes to complete.

**Terminology used in the present study**

The present study has elected to use the terms respondent and participant interchangeably. While the term participant is usually reserved for qualitative research, it is appropriate in the present context because of the interactive nature of the interviewing.

## CHAPTER VI

### METHOD

#### RESPONDENTS

The requirements for the purposes of the study were that respondents would have undergone a spontaneous abortion (up to 28 weeks gestation) not less than four weeks prior to the interview.

Due to the sensitive subject matter coupled with the fact that prospective respondents had undergone a stressful life event, recruitment was difficult and required the employment of several strategies.

Approval for the project was given by the Massey University Human Ethics Committee and the Manawatu/Wanganui Area Health Board Ethics Committee. The Wellington Health Ethics Committee also granted approval for the investigator to recruit from the Wellington Miscarriage Support Group.

Two strategies tried met with little or no success. After approaching the Manawatu/Wanganui Area Health Board Ethics Committee, and gaining approval for the project, the author visited the gynaecological ward and outlined the study and its aims to enlist the cooperation of staff. The Charge Nurse distributed information sheets (see Appendix C) and a letter describing the study to women who were in the ward being treated for a spontaneous abortion, and also displayed them on noticeboards (Appendix D). The patient was to contact the author by phone if she was interested in participating in the study four to six weeks after discharge.

This method attracted no participants, although a few women who had recently miscarried and who were recruited by word of mouth said they had become aware of the study through distribution of the literature in hospital.

A second strategy consisted of contacting respondents through their doctors' surgeries. The author visited or mailed letters to all obstetrical practitioners in Palmerston North and Feilding outlining the goals of the study, (Appendix E) with information sheets and consent forms (Appendix C & F) for the doctor to distribute. Again, it was up to the women to contact the author to express interest in participating, four to six weeks after their miscarriage. Only one respondent was recruited through this method.

Eleven subjects were recruited by means of the Palmerston North and Wellington Miscarriage Support Groups. The author contacted group leaders, went to meetings to outline the study, and distributed information sheets and consent forms. When women immediately expressed interest in participating as a result of this meeting, the author made follow-up contact to confirm and make an interview time. Some women contacted the author subsequently to ask to participate.

Sixteen respondents were recruited by means of advertisements in local community newspapers. The best response came through word of mouth as women were interviewed and contacted other women who wanted to participate. Twenty women were recruited in this manner.

Despite intensive efforts to recruit participants who had recently miscarried using the above strategies, very few women who had recently miscarried approached the investigator to participate in the study. The Ethics Committees approached were unwilling for the investigator to contact women personally, and women were also not allowed to volunteer for the study until they had left the hospital. The investigator was required to wait for interested women to contact her four to six weeks after their miscarriage. Shifting the onus from the investigator to the potential subjects probably contributed in part, to the low numbers who applied to join the study from information gained through doctors' surgeries and Palmerston North Hospital.

Five women initially agreed to participate, but changed their minds, three specifying their reason as anticipated distress. Of these women, one had responded to an advertisement, one was from a Miscarriage Support Group, and three were contacted by word-of-mouth.

Because of these recruitment difficulties, it was decided to extend the focus of the study to include women whose spontaneous abortions were of less recent occurrence.

### Description of Participants

The participants' mean age at the time of the miscarriage was 29.81 (range 18 to 44) (SD 5.92 years). Fifteen women (31.3%) did not have children at the time of the miscarriage. Among the 33 women (68.7%) who did have children at the time of the miscarriage, the mean number was 1.25 (SD 1.73) (with a range of one to 11). Time elapsed since the miscarriage ranged from four weeks to 26 years (with a mean of 6.6 years). Twelve women had undergone miscarriages in the preceding year. Table 1 shows length of time elapsed since the miscarriage.

**Table 1**  
Length of time elapsed since miscarriage

	Number of Years					
	< 1yr	2-5	5-10	10-15	15-20	20-26
Number of respondents	12	15	7	7	4	3

Table 2 describes the incidence of previous spontaneous abortions within the group. For 31 women ( 64.6 per cent) this was their first experience of miscarriage or ectopic pregnancy. Thirty-five per cent had experienced prior miscarriages, 10.4% had had one prior miscarriage, and a quarter of the sample had experienced between three and seven previous miscarriages previous to this the index miscarriage.

Table 2

Incidence of previous spontaneous abortions within the sample

Number of previous miscarriages prior to index spontaneous abortion						
Number of respondents	0	1	2	4	6	7
	31	5	9	1	1	1

**Description of index spontaneous abortion**

The gestational age for the spontaneous abortion about which the respondents were interviewed ranged from four to 25 weeks. The mean gestational age was 11.68 weeks (data for 49 miscarriages, one gestation date unknown). Four of the pregnancies were ectopic. The majority of spontaneous abortions involved singleton pregnancies, one woman's miscarriage involved triplets, one woman's involved twins, of whom one survived, and one other woman was told she may have lost twins, but as this was not confirmed histologically her pregnancy loss was assumed to be a singleton.

**MATERIALS AND PROCEDURE**

The majority of interviews were conducted in respondents' homes. After being informed orally about the nature and goals of the study, an information sheet (Appendix C) and informed consent form (Appendix F) were distributed to the respondent. After the informed consent form was signed, the interview began.

**Interview Schedule & Mental Health Inventory**

The interview schedule (see Appendix A) was largely based on Madden's (1988) schedule. Questions were asked orally, and the respondent was shown seven-point response scales where applicable. The author took notes rather than tape-recording interviews. This was to decrease reactivity, and also to facilitate management of data.



Because of the sensitive and personal nature of the information being sought, and the fact that for some women in the sample the miscarriage would have occurred relatively recently, up to two hours were set aside for each interview. In the introductory stage of each interview, and in the letters circulated to doctors' surgeries and to hospital patients, (see Appendix D and E) the author's experience of two miscarriages was mentioned. This facilitated rapport, giving the respondent and interviewer some common ground. The author attempted, during this introductory stage, to gain the respondent's confidence and to establish an empathic and relaxed climate for the interview. The informed consent process was fully explained, so that respondents could feel comfortable to decline to answer questions, withdraw participation, or ask questions at any stage. At the completion of the interview, respondents completed the Mental Health Inventory (Veit & Ware, 1983), (Appendix B).

### **Completion of Study**

On completion of the study, a summary of findings was prepared for all participants. In addition, the author visited the hospital gynaecological ward to outline major findings, and to thank staff for their cooperation.

# CHAPTER VII

## RESULTS

In this section, the major findings will be presented regarding the attribution measures, MHI scores, information, perceptions of pregnancy, emotional reactions at the time of miscarriage, and the results of the hypotheses presented at the end of each relevant section.

### A. ATTRIBUTIONS

1. **Attributions to self, partner, others, chance: frequencies**  
Frequencies for the attribution measures are presented in Table 3. More respondents made attributions to chance. Few made attributions to themselves globally, and when other people were viewed as responsible, the doctor(s) involved in the index pregnancy but sometimes prior pregnancies was most often the target.

Table 3

Mean responses and per cent endorsement of attributions  
of responsibility items  
(self, partner, others, chance) on seven-point Likert scale  
[N=48])

	1 Not at all	2 - 5	6 - 7 Completely	Mean
Self	68.8%	24.9%	6.3%	1.98
Partner	83.3%	14.6%	2.1%	1.44
Others	70.8%	16.8%	12.5%	2.10
Chance (N=47)	39.6%	35.5%	22.9%	3.4

### HYPOTHESIS 1

Respondents attributed more responsibility for their miscarriage to chance ( $M = 3.4$ ) than to themselves ( $M = 1.98$ ),  $t(46) = 3.17$ ,  $p < .003$ , to their partners ( $M = 1.44$ ),  $t(47) = 2.41$ ,  $p < .020$ , or to others ( $M = 2.10$ ),  $t(47) = -.31$ ,  $p < .755$ . The first hypothesis was thus supported, echoing Madden's (1988) finding.

### 2. Specific attributions to oneself

Frequencies for the internal attribution items are presented in Table 4. Respondents were somewhat more likely to attribute responsibility to their own physical features rather than personality or behaviour.

Table 4

Mean responses and per cent endorsement of specific internal attributions  
(Items on seven-point Likert Scale [N=48])

	1 Not at all	2 - 5	6 - 7 Completely	Mean
Physical features	52%	31.3%	16.7%	2.03
Personality	77.1%	16.8%	6.1%	1.65
Behaviour	70.8%	25.0%	4.2%	1.54

### HYPOTHESIS 2

The level of responsibility for the miscarriage attributed to physical characteristics ( $M = 2.6$ ) was greater than responsibility to behaviour ( $M = 1.88$ ),  $t(47) p < .05$ , or to personality characteristics ( $M = 1.8$ ),  $t(47) p < .032$ . The second hypothesis was thus supported, replicating Madden's (1988) finding.

### 3. General and specific attributions about miscarriage

A summary of the most frequent answers given by respondents to the question, 'in general, why do you think women miscarry?' is provided in Table 5. Some women were highly informed and could postulate several etiological factors, while others offered vague responses and nearly 17% had no knowledge about the subject. A small proportion (8.3%) attributed miscarriages to fate or 'karma' with statements such as "it's meant to happen," and "there's a reason." Few women specifically mentioned the paternal contribution to a pregnancy although many respondents mentioned chromosomal or genetic abnormalities, this is similar to Madden's finding (Madden, 1990).

Table 5

General attributions about miscarriage  
per cent reporting etiological factors

Etiological Factor	Per cent Reporting
Abnormality	14.6%
Foetal abnormality	50.0%
Maternal medical conditions	29.2%
Maternal behaviours	16.7%
Fate/chance	8.3%
Environmental factors (water, toxins)	8.3%
Process of conception: implantation/placentation	8.3%
Stress	12.5%
No explanation ("I don't know")	16.7%

Table 6 presents the most frequent answers given by respondents to the question, 'why do you think you miscarried?'

Women were slightly more likely to make behavioural attributions about other women's miscarriages than their own, i.e. they were more likely to cite maternal behaviours such as 'overdoing it' as contributing to other people's miscarriages. Maternal behaviours cited as contributing to the miscarriage included sexual intercourse, eating mussels, drinking and smoking.

**Table 6**  
Specific attributions about miscarriage:  
per cent reporting etiological factors

Etiological Factor	Per cent Reporting
Foetal abnormality	31.3%
Maternal medical conditions	25.0%
Maternal behaviours	8.3%
Fate/chance	8.3%
Process of conception, implantation, placentation	10.4%
Stress	10.4%
No explanation	20.8%

#### 4. Self-blame, other-blame, and perceived blame

Over half the sample reported they had never engaged in self blame, while 43.8% reported that at some stage they had engaged in self-blame.

The items exploring attributions of blame and responsibility to others were significantly correlated ( $r = .76$ , (df 48),  $p < .001$ ), indicating that if a woman perceived another person as responsible, she also blamed them. However, several women mentioned that while they attributed responsibility to what they

perceived as negligence or carelessness by doctors, they did not blame them.

#### 5. Perceived blame by others

Perceived blame by partner, i.e. the extent to which a woman perceived her partner as blaming her for the miscarriage, showed a weak negative correlation with partner support ( $r = -.09$ ,  $df$  47). This indicates that if a woman viewed her partner as supportive she was less likely to view him as blaming her for the miscarriage.

#### 6. Further analyses of attributions:

The  $t$ -tests comparing women with prior experience of miscarriage with women for whom this was their first miscarriage showed no significant differences in the attribution measures. When the attributions made by the women in the sample who had miscarried in the past year were compared with those of the rest of the sample, no significant differences emerged. There appeared to be a trend for the first-time miscarriers to report attributing more responsibility to their behaviours, however this did not quite reach significance ( $t = 2.00$ ,  $df$  46,  $p < .052$ ).

Table 7 presents correlations of the internal attribution measures. Strong correlations emerged between the item viewing oneself as responsible, and the two internal measures, viewing one's personality and one's behaviour as responsible. A significant correlation also emerged between attributions to one's personality, and behaviour. Correlating these items is somewhat artifactual. While they indicate a respondent was likely to endorse a similar figure on the two items being correlated, usually this figure was one, indicating an absence of the property being measured (as Tables 3 and 4 show). However, correlating the global self rating and the internal physical features item showed a weak negative correlation indicating a very slight tendency to attribute less



responsibility to self and therefore view physical features as less controllable aspects of the self.

**Table 7**  
Significant correlations among  
internal attribution items

	Self	Behaviour	Personality
Self	-		$r = .46^{**}$ (df 48)
Behaviour	$r = .55^{**}$ (df 48)	-	
Personality		$r = .46^{**}$	-

\*\*  $p < .001$

The tendency to view one's partner as responsible for the miscarriage was significantly negatively correlated with the respondent's perception of her partner's support at the time of the miscarriage ( $r = -.38$ , (df 47)  $p < .01$ ). In other words, a woman was less likely to view her partner as contributing to the miscarriage if she also viewed him as having been supportive through the event.

As can be seen from Table 8, the longer the gestational period, the more likely the respondent was to attribute responsibility to herself for the miscarriage, and she was also slightly less likely to attribute responsibility to chance.

**Table 8**  
Correlations between attribution items and gestation

	Self	Partner	Others	Chance
Gestation	.42*	.08	.07	-.03

\*  $p < .01$

## B. COMPARISON OF MHI SCORES AND ATTRIBUTIONS : HYPOTHESES

### 1. Attributions to self: Hypothesis

Because of the highly skewed distributions resulting from the attribution measures, it was decided to divide the attribution scores into two groups to investigate the relationship between attributions and psychological well-being, using t-tests, for a comparison of the group means. This was to facilitate comparison of MHI scores and the attribution scores. The first group comprised those who scored one, ('not at all') on the Likert scale. The second group comprised all scores greater than one (two to seven). Significant differences from comparisons of the MHI scores and internal attribution items are presented in Table 9.

### 1. Specific internal attributions

The internal attribution items showed that those respondents who attributed no responsibility at all for their miscarriage to physical features, (endorsing one, or 'not at all' on the Likert scale), had lower scores on both positive affect and MHI well-being if it was internal features other than physical to which they attributed their miscarriage. And where attributions to one's personality were made, a significantly higher score on the emotional ties factor emerged. Put simply, those who endorsed between two and seven on the Likert scale and viewed their personalities as contributing to the miscarriage, had higher scores on the emotional ties subscale of the MHI.

Table 9

Significant differences from  
comparison of MHI subscale scores and  
specific internal attribution items  
(Group 1 = attributed no responsibility)  
(Group 2 = attributed responsibility)

MHI Subscale	Attribution item	
	Personality	Physical features
Well-being		Group 2 higher ( $t = -2.99$ , $df$ 45, $p < .004$ )
Positive affect		Group 2 higher ( $t = -2.19$ , $df$ 46, $p = < .014$ )
Emotional ties	Group 2 higher ( $t = 2.26$ , $df$ 46, $p < .029$ )	

The hypothesis that attributions of responsibility to oneself for the miscarriage would be associated with impaired psychological well-being, produced equivocal findings. On the global item of attribution of responsibility to oneself, a comparison of MHI scores for women who attributed responsibility to themselves for the miscarriage showed that those who endorsed one ('not at all' responsible) had significantly higher scores on the emotional instability subscale ( $t = 2.21$ ,  $df$  46,  $p < .032$ ). (This result is presented in Table 10 with the other global attribution items).

### 3. Attributions to partner

T-tests revealed no significant differences between the respondents who attributed no responsibility to their husbands and those who did.

#### 4. Attributions to others and other-blame: Hypothesis

Respondents who attributed responsibility to others (excluding the partner) showed significantly higher scores on the depression and distress subscales (however they also had a higher score on the emotional ties subscale and positive affect. A summary is presented in Table 10.

**Table 10**  
Significant differences from comparison  
of MHI scores and global  
attribution items  
(Group 1 = attributed no responsibility  
Group 2 = attributed some responsibility)

Attribution item			
MHI Factor	Self	Other	Other blame
Positive affect		Group 2 higher ( $t = -2.06$ , $df$ 46, $p < .045$ )	
Depression		Group 2 higher ( $t = -2.78$ , $df$ 46, $p < .008$ )	
Emotional Ties		Group 2 higher ( $t = 2.81$ , $df$ 46, $p < .007$ )	
Emotional instability	Group 1 higher ( $t = 2.21$ , $df$ 46, $p < .032$ )		Group 2 higher ( $t = -2.08$ , $df$ 46, $p < .036$ )
Distress		Group 2 higher ( $t = -2.60$ , $df$ 46, $p < .012$ )	Group 2 higher ( $t = -2.16$ , $df$ 46, $p < .043$ )
Well-being			
Mental Health Index			Group 2 lower ( $t = 2.08$ , $df$ 46, $p < .043$ )
Anxiety			

The hypothesis that attributions of responsibility to others would be associated with impaired psychological well-being received limited support.

### C. INFORMATION

Nearly thirty per cent of women reported they had no factual information about miscarriage prior to the event, and 29.2% endorsed moderate to high levels on the scale, frequencies are shown in Table 11.

Table 11

Respondents' perceptions of information related to miscarriage. Per cent reporting on Likert Scale

	1 no information	2 - 5	6 - 7	Mean	SD
Before miscarriage	29.2%	45.8%	25%	3.33	2.21
After miscarriage	4.2%	31.3%	64.5%	5.67	1.52

First-time miscarriers who said they had considered the possibility of miscarriage reported experiences such as persistent bleeding, or haemorrhages which led them to consider miscarriage as a possible outcome to the pregnancy.

Few women had entertained the possibility this would ever happen to them. Table 12 shows the frequencies for the response to the question: "To what extent had you considered the possibility of miscarrying prior to the event?"

**Table 12**

Extent to which respondent had considered the possibility of miscarriage prior to index miscarriage, on Likert scale  
(per cent reporting)

	1 (not at all)	2 - 5	6 - 7
Extent to which considered possibility of miscarriage	56%	29.4%	14.6%

**Information Hypothesis 1:**

The first hypothesis was supported, with women generally reporting a low level of factual information prior to the miscarriage, ( $M = 3.33$ ,  $SD = 2.21$ ).

**Information Hypothesis 2:**

Women with prior experience of pregnancy loss demonstrated significantly higher levels of factual information, as Table 13 shows.



Table 13

Comparison of information levels between women with no previous miscarriages (Group 1, N= 31) and women with previous miscarriages (Group 2, N= 17)

Likert scale	Group 1	Group 2	t value	Signif.
extent to which considered possibility of miscarriage	M = 2.1	M = 3.76	-2.67	$p < .011$
level of factual information prior to index miscarriage	M = 2.61	M = 4.64	-3.38	$p < .001$
level of current factual information	M = 5.32	M = 6.29	-2.20	$p < .033$

Women with prior experience of miscarriage were also more likely to have considered miscarriage as a possible outcome to the pregnancy. The second information hypothesis was thus supported. Of the women with experience of multiple miscarriage many spontaneously commented that at the time of their first they knew little or nothing about miscarriage, and didn't expect it to happen.

#### D. PERCEPTIONS RELATED TO PREGNANCY AND GESTATION

Frequencies for endorsement of items relating to planning of the pregnancy, attachment to the idea of having a baby, and extent of wanting a baby, are presented in Table 14.

Table 14

Perceptions related to pregnancy:  
seven point Likert scale  
per cent reporting

	Not at all 1	2 - 6	Completely 7
Pregnancy planned	39.4%	14.8%	45.8%
Wanted baby (M = 5.6)	10.4%	29.2%	60.4%
Attachment to idea of having baby (M = 5.21)	14.6%	33.3%	52.1%

Significant correlations of these perceptions of pregnancy are presented in Table 15. Planning of the pregnancy was not significantly correlated with any of the internal or external attribution measures. However, it was weakly negatively correlated with attributions made to chance, to others, to partner, and positively (but again not significantly) correlated with attributions to self.

Table 15

Significant correlations relating  
to perceptions of pregnancy

	Planning of pregnancy	Wanting baby	Attachment to idea of pregnancy
Planning of pregnancy	-	$r = .50^{**}$ (df 48)	$r = .48^{**}$ (df 48)
Wanting baby	$r = .50^{**}$ (df 48)	-	$r = .62^{**}$ (df 48)
Attachment to idea of having baby	$r = .48^{**}$ (df 48)	$r = .62^{**}$ (df 48)	-
Respondent's age at time of miscarriage			$r = .37^{**}$ (df 48)
Time elapsed since miscarriage			$r = .53^{**}$ (df 48)

\* =  $p < .01$

\*\* =  $p < .001$

Gestation (length of pregnancy) was not found to correlate significantly with either wanting the baby or attachment to the idea of having a baby.

## 2. Perceptions about miscarriage : Confidence in ability to have successful pregnancies and avoid miscarriage

Table 16

Perceptions about miscarriage: confidence  
in ability to avoid miscarriage  
and ability to carry full-term  
pregnancy

Level of confidence in:	per cent reporting		
	1 (not at all)	2 - 6	7 completely
ability to avoid miscarriage (now)	52%	45.9%	2.1%
ability to avoid miscarriage (after miscarriage)	43.8%	41.6%	14.6%
ability to carry baby to full term	12.5%	54.2%	33.3%

Table 16 shows that while respondents felt they had little control over the possibility of recurrence of a miscarriage, they anticipated they would be able to carry successfully to term in the future. And in answer to the question is there anything you feel you would do differently in a future pregnancy, 58.3% of respondents said yes, a higher proportion than for Madden's sample. Future pregnancy behaviours respondents indicated they would change included wearing a lead apron near VDUs, avoiding smoking, drinking, chemical sprays, sexual intercourse, reducing exercise and stress levels. Some respondents also indicated they would change behaviours and lifestyles prior to conception.

## 3. Analysis for within-sample differences : perceptions of pregnancy

Madden found optimism about future pregnancies was negatively correlated with the number of previous miscarriages, but in the

present study there was not a significant correlation, although it was in the same direction (negative).

#### 4. Responses to pregnancy/miscarriage cues

##### Pregnancy cue:

The predominant themes which emerged in response to the pregnancy cue are presented in Table 17. Overall, women tended to view pregnancy positively, and to list negative characteristics for miscarriage. Terms which might be interpreted as negative which were supplied for pregnancy tended to be in terms of the bodily changes which accompany pregnancy. Fewer words describing emotions were selected, and affect-related terms tended to be positive. Sixty per cent of women chose at least one positive affect term for the pregnancy cue. Where negative affect words were selected, these tended to reflect themes of fear and anxiety, especially centering around the prospect of miscarriage.

Table 17

Free responses to pregnancy cue:  
number of subjects selecting major themes and per cent  
of total responses

Major theme	Number of respondents selecting	Per cent of total responses
Positive affect	29	32%
Waiting, anticipation	13	7%
Physical aspects (fat, tired)	26	26.6%
Life (baby, life)	8	7.9%
Negative affect	11	11%
Maternal role/relationships	16	13%

**Miscarriage cue:**

Table 18 lists the predominant themes which emerged in response to the miscarriage cue. There was a preponderance of negative affect responses. Seventy-seven per cent selected either two or three negative affect terms. Very few respondents chose positive terms for the miscarriage cue. Respondent 18, who listed negative pregnancy characteristics for the pregnancy cue and positive ones for the miscarriage cue, stated she had been proceeding for a termination anyway. Another woman who had recently miscarried and who had eleven children, had experienced two earlier miscarriages and viewed miscarriage neutrally rather than negatively.

**Table 18**

Free responses to miscarriage cue:  
number of subjects selecting major themes  
and per cent of total responses

Major theme	Number of respondents selecting	Per cent of total responses
Negative affect (depression, devastation)	38	54%
Loss, disappointment	24	13%
Physical aspect (blood, bleeding, pain)	17	16%
Shock	6	4%
Positive affect (relief)	6	4%



# E. EMOTIONAL REACTIONS AT THE TIME OF THE MISCARRIAGE

Table 19 lists the most commonly reported emotional reactions at the time of the miscarriage.

**Table 19**  
Emotional reactions immediately  
following the miscarriage

Emotion	Per cent reporting	Intensity	
		Mean	SD
Sadness	75%	4.56	2.89
Fear, anxiety, worry	22.9%	1.35	2.52
Anger	25%	1.48	2.80
Shock	12.5%	0.77	2.11
Loss, emptiness	33.3%	2.00	3.02
Pain	12.5%	0.71	1.98
Confusion/unsure	16.7%	0.88	2.07
Positive affect (relief,happiness)	16.7%	1.63	2.57

Negative affect emotions predominate. Where positive affect terms were selected, these tended to be in terms of relief that the period of uncertainty or waiting was over, relief at the termination of physical pain, and sometimes relief if the pregnancy was both unplanned and unwanted.

Reactions of shock, confusion and sometimes fear, often appeared to derive from the unexpectedness of the event, and women's lack of preparedness for medical and hospitalization procedures. Women who aborted at home also reported the experience as frightening.

A third of the sample reported emotional reactions of loss or deprivation; eg 'lost dreams', 'emptiness', 'hopes and dreams shattered', at the loss of their pregnancy.

## CHAPTER VIII

### DISCUSSION

This chapter focusses on the results related to attributions. It begins by outlining several major limitations in the present study, in the expectation that this will to some extent clarify the results. The results and hypotheses are then discussed. Attributional issues and issues related to the information variable are explored. Finally, the chapter will conclude with suggestions for future research on attributions subsequent to miscarriage. A discussion of the findings regarding attributions follows.

#### LIMITATIONS OF THE PRESENT STUDY

##### Composition of the sample

The highly variable time period elapsed since the index miscarriage in the present study to some extent compromises both the reliability and the generalisability of the findings. Research on the recall of life events indicates that accuracy of recall in the remote past lessens to some extent with the passage of time (Brown & Harris, 1982). Peppers and Knapp's (1980) findings were criticised because of the variable time period since the perinatal loss about which respondents were interviewed. However, Rosenblatt and Burns (1986), who interviewed randomly selected adults about perinatal losses which had occurred up to 40 years previously, commented that the majority of their sample could recall the events in great detail except for some cases of multiple miscarriers. They noted the tendency (observed in the present study) of people recalling these sorts of events to anchor them in a family context, and to locate them chronologically through family occasions such as birthdays, or Christmases, rather than factual dates and times.

This study, like most other research to date, has studied the reactions of women hospitalized subsequent to miscarriage. The findings of the present study may not generalize to women who

have not undergone hospitalization subsequent to miscarriage. The overwhelming majority of respondents underwent hospitalization so statistical analysis of this variable was not performed.

#### **Limitations of the measures**

As the frequencies for the attribution measures particularly demonstrate, distributions were highly skewed, and this meant that statistical analysis options were limited. Some of the attribution measures were dichotomized in order to make comparisons with the Mental Health Inventory subscales, but this was clearly a less than ideal data analysis strategy.

The same problem appeared with other measures, eg planning of the pregnancy. Judging by people's responses, contraceptive behaviour might feasibly be conceptualized as a continuous rather than a dichotomous variable. However, respondents appeared to perceive it as dichotomous in their responses. Providing a checklist with contraceptive behaviours would provide more meaningful data on contraceptive behaviour, and planning of a pregnancy might emerge as a continuous rather than a dichotomous variable. Having a contraceptive in place and falling pregnant accidentally connotes active planning against pregnancy, and should not be viewed (for the purposes of measurement) as equating with more passive contracepting behaviour (eg not taking any precautionary measures to avoid pregnancy, but saying a pregnancy was unplanned because it happened. In addition, social desirability might affect responses. Women might be reluctant to admit to lack of planning of pregnancies. Or they might experience cognitive dissonance at grieving for a pregnancy they didn't plan, if they equate planning with wanting.

#### **GENERAL FINDINGS : ATTRIBUTIONAL HYPOTHESES**

The finding that attributions of responsibility to chance are more likely than other attributions subsequent to miscarriage replicates Madden's (1988) result. The mean response of

Madden's sample was 6.25 on a ten-point Likert scale, as compared to 4.25 for attributions of responsibility to themselves, 2.16 attribution of responsibility to husband, and 1.52 to others. Since Madden does not state how many respondents did not endorse the item it is impossible to compare the proportions of her sample who attributed responsibility to chance or made other attributions.

However, the fact that this item followed questions about responsibility attributed to oneself, one's partner, other people, could indicate that a respondent's choice was forced, i.e. that if she had not endorsed the preceding items she felt she had to endorse the item on chance, to justify not attributing responsibility to an individual. In contrast, chance or fate were offered less often in response to the open-ended question asking: "Why do you think your miscarriage happened." The proportion here who answered 'chance' was a similar one to Dunn et al.'s sample's response to a similarly worded question. Twelve and a half per cent attributed their loss to fate or chance, as opposed to having no explanation (21.4%), attributing the loss to physical problems (50.5%) and blaming the mother (15.6%). Of those people who generated a second explanation for the loss, 26.5% attributed the loss to chance. Madden does not publish her sample's response to this question.

However, medically, a substantial proportion of miscarriages are viewed as inevitable pregnancy wastage, and due to chance. Also, since few respondents received medical explanations, and many urgently wanted one, this is probably a logical attribution to make. It is interesting that chance was sometimes viewed in fatalistic or spiritual rather than statistical terms. Statements such as "it's meant to happen", and "there's a reason," occurred frequently. Some women appeared to incorporate the miscarriage into their spiritual or religious beliefs and view it as a predestined event, from which they derived meaning.

The finding that characterological attributions to oneself are less likely than attributions of responsibility to one's behaviour and one's physical features subsequent to miscarriage replicates other findings (Madden, 1988; Dunn et al., 1991). As the perception of pregnancy measures showed, most respondents had a belief they could do little to avoid miscarriage, but they also appeared surprisingly optimistic about their ability to carry future pregnancies successfully to term. To hold two apparently contradictory perceptions about pregnancy probably necessitates the formation of behavioral attributions about one's pregnancy behaviours. The behavioral self-blame literature suggests the individual's perception they can change their behaviours and thus affect future outcomes, leads to a sense of control or mastery (Janoff-Bulman, 1979), while the tendency to make attributions characterologically is "oriented towards hopelessness," (Dunn et al., 1991, p. 20). Although in the sample many previous losses had been experienced, overall women were far from hopeless.

The finding that if attributions to internal features of the self were made physical attributions were most likely, might be explained in two ways. Firstly, pregnancy and miscarriage are primarily viewed as physiological processes with medical outcomes. This is evidenced by the numbers who chose physical characteristics in response to the pregnancy and miscarriage cues. Secondly, while physical attributions might appear to encompass enduring parts of the self and thus be similar to characterological features, in that they also are less subject to change than behaviours, such attributions are less global. Personality is central to self-image and self-esteem, since one's personality can be said to impact on many situations. If attributions are made about enduring physical features on the other hand, one's body is less central to one's perception of oneself and there is less of an implied threat to self-esteem. Perhaps an attribution to physical features is facilitated by a perception of lack of control over anatomical and physiological features. If a miscarriage is attributed to a



uterine abnormality, an individual may feel more comfortable, because she perceives she can't help her body type. But a characterological attribution such as 'I have a bad personality,' might leave the individual feeling she ought to be able to change it.

#### **CHARACTEROLOGICAL VERSUS SELF-BEHAVIOUR ATTRIBUTIONS**

Maginness (1990) has challenged the utility of viewing behavioral and characterological self-blaming as mutually exclusive concepts. In the present study the items attributing responsibility to one's personality and to one's behaviour were strongly correlated. Miller and Porter (1983) have pointed out that the distinction between self-characterological and self-behaviour attributions may be a function of semantics. This is illustrated by one respondent in the present study who strongly endorsed the item on characterological attribution to self responding "I was disobedient to my God." She then reasoned aloud to herself when questioned with the item on self-behaviour commenting that she had disobeyed and that constituted a behaviour. That this is a typical attributional style for this woman is exemplified by her description of a stomach upset the day of the interview for which she also searched her conscience and attributed to her 'disobedience'. Perhaps, as Maginness (1990) suggests, these attributions might be better viewed as being on the same continuum. A key issue here may be in a respondent's definition of behaviour as opposed to personality. Some respondents who engage in behaviours with a high frequency may be more likely to view these typical behaviours as features of their personality and endorse the item accordingly.

#### **ATTRIBUTIONS TO SELF AND PSYCHOLOGICAL WELL-BEING**

This hypothesis received somewhat limited support since the group who did not attribute responsibility to themselves had significantly higher scores on the emotional instability (loss of behavioral emotional control) subscale. This could be interpreted as supporting other findings relating attributions of responsibility to own behaviour after traumatic events with

more favourable psychological outcomes (Janoff-Bulman, 1979; Mueller & Major, 1989; Janoff-Bulman & Schwartzberg, 1991). This result may be allied to scores on the perceptions related to miscarriage. These showed that the majority of women subsequent to miscarriage envisage their future pregnancy outlook as having both negative and positive outcomes. Since miscarriage may be viewed as threatening to one's self-esteem, and shattering of illusions of invulnerability when it happens unexpectedly, perhaps taking some responsibility might be interpreted as a safeguard against future negative outcomes.

However, a recent longitudinal study conducted by Downey, Silver, and Wortman (1990) on parents who lost children to Sudden infant death syndrome, produced opposite results. The formation of attributions to oneself or others appeared to be related to distress. This might be related to the fact that when pregnant, women assume responsibility for the foetus, while it is perceived as an integral part of the self. As the present study and other studies on pregnancy and abortion have shown (Baker & Quinkert, 1983; Major et al., 1985; Madden, 1988) generally, women do appear to assume responsibility for pregnancy and its outcomes. However, Downey et al. contrasted the relatively low distress of parents who were unconcerned with attributional issues and concluded that "lack of attributional concern may be adaptive because it protects people from arriving at the distressing conclusion that nothing or nobody caused the event" (Downey et al., 1990, p.934).

#### **ATTRIBUTIONS TO OTHERS AND PSYCHOLOGICAL WELL-BEING**

The hypothesis was ostensibly supported, because those who made attributions of responsibility to others had higher scores on distress as opposed to psychological well-being (the two basic complementary factors underlying the MHI). However, this group also had significantly higher scores on two subscales viewed as contributing to well-being content (emotional ties and positive affect). In addition they had higher depression scores.

### **Possible explanations for results :**

The emotional ties factor is loaded from three items which relate to feeling loved and wanted, love relationships being full and complete, and times loneliness is felt. It is conceivable that a person might experience emotional distress but still report optimal relationships with significant others. Alternatively, as the nature of the ties is not specified, high scores on this subscale might suggest unhealthy relationships for some people, eg emotional dependency, which in turn could contribute to psychological distress.

The higher scores relating to apparently contradictory or mutually exclusive affective states are more perplexing. The items relate to a person's behaviours and experiences within the past month. Thus several explanations are possible. It may be that this group has experienced a high degree of both negative and positive affective states within the past month. Possibly they oscillate more between states. Alternatively this group could have a greater readiness to report on affective behaviours and states. Perhaps people who have a tendency to attribute responsibility to external others in their environment may be more susceptible to influence by external events on a day-to-day basis. Such individuals would be viewed as having an external locus of control, using this theoretical perspective, as outlined by Rotter, (1966, cited May, 1991, p. 228).

On the other hand, it appears coincidental that the two subscales which differentiated those who made specific internal attributions, (emotional ties and positive affect) should again discriminate at a significant level between those who attributed responsibility to others and those who did not (see Tables 9 and 10). Perhaps some people who attribute responsibility to something, be it their personality or doctor or husband, feel satisfied merely through making an attribution about a situation they didn't understand. Having assigned an attribution they can then accommodate their lives to their new situation, and resume their relationships. This could account for the higher

emotional ties score suggesting optimal love relationships. It could also account for higher positive affect scores.

#### **Attributions of blame to others and well-being**

The fact that those who attributed blame, as opposed to attributions of responsibility, to others had more uniform results when comparisons were made between their scores and those of respondents who did not attribute blame, is interesting. Those who endorsed other blame items had higher scores on distress and emotional instability. And their scores on the Mental Health Index were lower. This result would seem to support the body of literature on attributions of responsibility to others and other blame, since a consistent finding has been that other blame is linked to poorer psychological outcomes (Major et al., 1985; Bulman & Wortman, 1977). This might indicate that the constructs of blame and attribution are two different constructs because of the variance in scores between the groups. Even though blame and attribution are often used interchangeably by psychologists, several respondents differentiated these constructs, and viewed them differently.

This attributional pattern might be interpreted in the light of Janoff-Bulman's (1979) finding that in making causal attributions after stressful life events, individuals normally seek to make attributions which give them a sense of control. Making external attributions could give the individual the perception of controllability and ability to modify her environment. In fact, if attributions were made to others, usually doctors were the target, and many women changed their doctors. Friedman and Cohen (1982) have noted the propensity of women to change gynaecologists subsequent to perinatal loss. Attributing responsibility to one's doctor and then obtaining the services of another, demonstrates that in the case of miscarriage, external attributions may facilitate a sense of control, even though this may not be the case with other life events.

### Issues related to other-blaming

Madden (1988) found that attributions to husbands were significantly greater than attributions to others. This differs from the present study, where doctors were most frequently viewed as responsible. This might be explained by two differences in our samples:

1. The bulk of Madden's sample was recruited through gynaecological practices. To some extent, the participants in the present study are very much self-selected, and had to actively choose to participate.

2. Madden's participants were told about the study at their follow-up visit to their doctor two weeks subsequent to their miscarriage. When recruited in this way, respondents might be unwilling to criticize their physician. One could also speculate that when such immediate post-operative care is provided, doctors may be viewed as being extremely helpful by their patients. Follow-up care subsequent to miscarriage is not routine in New Zealand, and if a follow-up visit was scheduled it would be more likely to be six weeks after the event, as in a post-natal check. Another possible inference is that doctors who follow-up rigorously may be doctors less likely to make mistakes in the treatment and diagnosis of miscarriages.

3. Madden did not include ectopic pregnancies in her sample. The fact that misdiagnoses are often reported with ectopic pregnancies, and as a complication they are potentially life-threatening, could indicate women in this situation might more actively blame their doctors.



## **ATTRIBUTIONAL ISSUES**

### **1. Failure to supply attributions**

Chapter IV outlined other investigations on the nature of attributions subsequent to perinatal loss which reported large numbers of respondents failing to make attributions of causality (Giles, 1970; Seibel & Graves, 1980; Dunn et al., 1991). It is disappointing that comparisons are unable to be made with Madden's (1988) study regarding the numbers of women who failed to supply attributions, since she does not publish summaries of this data. In the present study, the items asking women why do miscarriages happen in general, and why did their miscarriage happen, elicited a relatively large number of "I don't know" answers. Miller and Porter (1983) conjecture that more traumatic types of victimization are likely to provoke causal analyses. To test this, Downey et al. (1990) conducted a longitudinal study with parents who had experienced Sudden infant death syndrome, and found that as early as three weeks post loss, 45% of their sample were not concerned as to why the loss occurred. They concluded that for some individuals, causal analyses are simply not important. However, a potential artefact here is that widely publicised campaigns about SIDS have led to increased public awareness about the syndrome. It is well known that the etiology of SIDS still remains unexplained, in spite of ongoing research efforts. This may explain these attributional behaviours. Perhaps the parents recognise that causal analyses are fruitless. This situation differs from miscarriage, because while the etiology of many miscarriages cannot be explained medically, miscarriage is not highly publicised and the present results showed, women have little information about miscarriage prior to the event.

### **2. Attributions to others and displacement**

Friedman and Cohen (1982) view attributions of blame to husbands or doctors as most likely being the result of displacement of anger. Hall et al. (1987) also noted that often in cases of perinatal loss, the medical team is an outlet for severe anger. One respondent, who reported that her infertility and ectopic

pregnancies had originated through sexually transmitted diseases transmitted by her husband, which led to scarring of her fallopian tubes, did not blame him. Instead, she both blamed and attributed responsibility to herself, and the medical profession. Possibly the displacement of anger occurred because it is difficult to actively blame a person who is simultaneously one's major source of support. Actively blaming one's partner in this case could threaten the marital relationship, therefore it is easier and more convenient to displace the anger and blame to a more safe target. Additionally, from the respondent's account it appeared her doctors were partly responsible, and medical negligence had occurred.

### **3. Attributions to others and cognitive dissonance**

The negative correlation between the item attributing responsibility to partner for the miscarriage, and the item describing the partner's level of support at the time of the miscarriage, indicates that if a woman perceived her relationship as satisfactory, she was unlikely, or unwilling to implicate her partner. For example, in the present study one recently married 36 year old respondent clearly experienced dissonance at openly attributing responsibility to her husband, who had been highly supportive through her miscarriage. She commented "He thought he didn't do the job right", when responding to the item investigating responsibility attributed to partner, but appeared unwilling to blame him herself. This was her partner's first baby, but the respondent had had a child at 19. Possibly she felt she had already proved her fertility but was reluctant to attribute responsibility to her partner who had been highly supportive.

### **4. Attributions to others and level of information**

A further reason for the few attributions being made to husbands might be women's lack of information about the biology of miscarriage. One highly informed woman, who had searched exhaustively for causes for her three miscarriages, was the only respondent whose prevention behaviours involved her husband.



This respondent took folic acid tablets before conception (in addition to a range of preventive behaviours) and made her husband take folic acid as well, expressing disappointment at his lack of regular compliance.

### **5. Changes in attributional processes**

Wortman and Silver (1989) note that the use of cross-sectional designs militates against the detection of temporal changes in the attribution process. Several women referred to their other miscarriages in addition to the index miscarriage, and observed they had changed some beliefs and behaviours as a result of previous miscarriages. Respondent 44, after eight pregnancy losses, reported her urgency to know had increased, reporting "I'd be really happy if they split me open and found a tumour." She reported having engaged in self-behaviour blame initially, but after extreme precautions failed to avert pregnancy loss, she realized her behaviours had no effect on the situation.

### **6. Selective evaluation**

Taylor, Wood and Lichtman (1983) noted the propensity of some individuals to report deriving positive benefits from negative experiences. Respondent 19 commented that she now thought she had a bond with other women through her miscarriage experience. And both downward and upward comparisons were engaged in. Several women with early losses commented that a late loss would have been worse, while one woman with a late loss commented she felt sorry for women with early losses because they received less support from onlookers and medical personnel, since they did not have a visible dead infant on which to focus their grief.

### **7. Need to make attributions, find a reason**

In answer to the question "why do you think women miscarry", respondent six commented that she didn't know. She attributed her miscarriage to her heavy drinking during pregnancy, but commented: "I think you make a reason because you're not given one." This attributional behaviour is similar to that reported

by Dunn et al. (1991) who reported large numbers of respondents generated an explanation of their own to account for their perinatal loss, many of which involved blaming the mother for her behaviours during pregnancy.

Another respondent, who incorporated her miscarriage into her spiritual beliefs about reincarnation, commented: "There had to be a reason because I bloody didn't deserve it". This forthright response shows the other side of Lerner's often cited 'just world' phenomenon (Lerner, 1980). A way for individuals to make sense of another person's victimization is to derogate the victim and view them as deserving to be victimized. The corollary of this is that the observer is a superior person who does not deserve to be victimized. This respondent after years of infertility did not view herself as deserving a miscarriage. Because having a miscarriage shattered her assumptive beliefs and appeared meaningless and undeserved, she incorporated the event into her spiritual beliefs and this was a source of support for her.

One area found to provoke causal analyses subsequent to perinatal loss is sexual behaviours. Woods and Dery (1979) have reported a common fear held during pregnancy is that sexual intercourse will cause foetal injury, or even provoke miscarriage. Mead and Newton (1967) report that a ban on coitus during pregnancy is a fairly common cross-cultural phenomenon. In the present study two respondents reported both they and their partners had attributed responsibility to themselves for having had sexual intercourse the day prior to miscarrying. And curtailing sexual behaviour during pregnancy was seen as a preventive behaviour by several women.

#### **8. The search for a normative standard**

Miller and Porter (1983) observed that in situations of victimization, victims may wonder about the appropriateness of their reaction. This may also be true for the situation of miscarriage, because of low levels of information available, and

the secrecy surrounding the topic. It was found to be very true for a number of women in the present sample. Several who felt they weren't affected by grief in the same way as others, needed validation from the interviewer that they weren't 'hardened' or insensitive. Similarly, women who felt their grief reaction was more prolonged, appreciated being told of the individuality of reactions possible. One woman had never spoken of her three miscarriages to others, purchasing a book on the subject, which she kept hidden and never read openly. She repeatedly asked the interviewer about her own miscarriages and appeared to be trying to gauge the appropriateness of her own reaction from them.

#### 9. Issues related to the information variable

As predicted, many respondents were unprepared for the event of miscarriage, a similar finding of other researchers (Hamilton, 1989). Grief literature suggests that reactions to sudden or unexpected bereavement situations may be problematic (Lundin, 1985). It appears clear that if more information were available about miscarriage, it would be experienced as less of a shock by some women. When asked what would have helped them at the time of the miscarriage, information was a frequent response.

Few women received medical explanations similarly to Jackman et al.'s (1991) study. And what some women perceived as an explanation, eg the statement by a doctor that there is no explanation, was viewed as unsatisfactory by some. The women who did receive medical explanations indicated they felt more satisfied if a reason was found. This is similar to Jackman et al.'s (1991) finding.

The information variable is linked to medical attributions. If no information was forthcoming from her doctor, a woman was more likely to feel negatively towards him/her. For example respondent five received no explanation for her late miscarriage. She took some responsibility, but not blame, for the event because as a chronic asthma sufferer she needed high

doses of steroids. She both attributed responsibility to, and actively blamed, her asthma specialist as he avoided confirming her diagnosis, and appeared to her to know little and to care little about the possible connection between her medication and her pregnancy loss.

A contrasting example is that of respondent eight, who was the only respondent to present as the result of a doctor's referral. Although she received no medical explanation, her doctor explained no medical reason could be found, and this respondent said this didn't upset her "because a doctor's not a mind-reader."

#### **10. Attributes of the situation versus attributions about the situation**

The present study, and the attributional studies which have been cited in the context of self-blame and other blame (Janoff-Bulman, 1979; Major et al., 1985; Madden, 1988) fail to address an important theoretical issue. To what extent are attributions to oneself or others merely a function of the objective properties of the original situation which led to the attributions? Downey et al. (1990) consider that to some extent, individual differences in attributional analyses may be a function both of the severity of the event, and its objective circumstances. It may be that in some studies what is being measured are the attributes of the original situation, rather than differences in individual attributional styles. Some situations would appear to naturally engender attributions to others (regarded as maladaptive by the above theorists) and preclude the use of strategies such as self-blame, viewed as adaptive. For example, in the Major et al. (1985) study of attributions to abortion, the trend observed with other-blame indicated it was related to poorer coping, consistent with earlier research (Bulman & Wortman, 1977; Janoff-Bulman, 1979). Yet these women seeking termination of pregnancy were not asked if they were raped. It would seem that many rape situations would preclude the use of self-behaviour blame. It appears

logical to attribute responsibility for unwanted pregnancy to a rapist responsible, rather than to oneself, yet this attributional style would be viewed as maladaptive. It seems obvious that sometimes attributions logically follow from the attributes of the situation. In the present study, some respondents did appear to be engaging in maladaptive and sometimes irrational attributional strategies. For example some respondents said they were blaming their partners for the miscarriage, but it emerged that they really meant their partners were not sympathetic enough once they had miscarried. However, some people who attributed blame and/or responsibility to other people, appeared to be very logical in assigning attributions which followed because of the attributes of the original situation. In summary, the objective properties of a situation contribute to the formation of attributions. To some extent this may confound measurement of attributions. To explore this further, including an attributional styles questionnaire to investigate typical attributional patterns, would be a useful area for future study.

#### **SUGGESTIONS FOR FUTURE RESEARCH : ATTRIBUTIONS AND PERINATAL LOSS**

Some deficiencies in the interview schedule have already been commented on. The comparison of responses to items exploring other blame and attributions to others did reveal some differences between individuals' perception of these two constructs (MHI scores). However rewording of the self-blame item limited data on self-blame available. Many women reported having engaged in self-blame at some stage, but for some this was ongoing. The rewording of the question made it impossible to explore this temporal difference in attributional style further. To explore blame and attribution as constructs, it would be useful to embed differently worded items throughout a schedule so that an equal proportion of each were present. This might provide information about the more cognitive process of assigning attributions of responsibility as compared to the more affective process involved in blame. To address these deficits



in the schedule, increasing the total number of items and having a checklist approach would be useful. This would have to be combined with a short, semi-structured interview so the questions on the checklist would not be experienced as intrusive.

The different meanings ascribed to chance by some respondents have been described above. Including more specific items measuring these aspects of chance might be a more useful measure and provide information about individual differences in attributional styles.

#### **SUMMARY:**

The present study has demonstrated the variability and individuality of attributions made subsequent to miscarriage. Madden, in her study presented mainly quantitative data. Through exploring attributional issues, and discussing the meaning of attributions for individuals, the present study has extended Madden's findings. While the present study has shown that some general statements may be made regarding attributions subsequent to perinatal loss, attributions are shaped by many factors, and there is thus considerable variability. In addition, while individuals may be seen to be making similar attributions, their attributional processes and psychological outcomes may be quite different. The present study has also demonstrated that different responses may be forthcoming depending on the measure used, i.e. whether an open-ended question is asked, or a series of scales with attribution items supplied.

To briefly recapitulate, women were more likely to attribute their miscarriage to chance than to themselves, their partner, or other people. If women did attribute their miscarriage to themselves, they were far more likely to attribute responsibility to their physical features, rather than to their personality or behaviour.

While the hypotheses that attributions of responsibility to oneself and to others would be associated with impaired psychological well-being received ostensible support, the relationship between attributions and psychological well-being was considered complex and attributional issues were discussed at length.

Both information hypotheses were supported, with women reporting they had little factual information prior to miscarriage, and did not expect it to happen to them. Those respondents with previous experience of miscarriage had significantly higher levels of information.



## CHAPTER IX

### CONCLUSION

The present study has found that miscarriage is a unique event as experienced by many women. The following discussion examines some aspects of miscarriage and offers some suggestions for future research in the field of perinatal loss. In conclusion, the practical implications of the research are discussed.

#### THE NATURE OF MISCARRIAGE AS A LIFE EVENT

##### 1. Miscarriage as a situation of victimisation

The present study has eschewed Madden's use of victim terminology to designate the situation of women subsequent to miscarriage. While miscarriage can be experienced by many women as upsetting, and even traumatic, it is a key developmental life event and it appears bizarre to use the same terminology as for situations where victimisation has clearly occurred, such as rape, or technological disaster. Use of the term victim is more appropriate for situations which provoke uniformly negative reactions, such as rape. The present study has shown that reactions to miscarriage vary: one woman may experience relief and another post-traumatic stress disorder. In addition, use of the term victim appears to connote passivity (Atkinson, 1993).

##### 2. Women's emotional reactions to miscarriage generally

Women's perceptions about miscarriage and pregnancy generally were shown by the free responses to the pregnancy and miscarriage cues (Tables 17 & 18). Viewed collectively, these responses show that women were likely to select characteristics related to physiological aspects of pregnancy rather than terms related to affect. In contrast, physiological aspects of miscarriage were less likely to emerge as salient, and negative affect terms were far more prominent with the miscarriage cue.

This demonstrates that miscarriage is perceived as a negative event by many women, and as more than a physiological process.

While overall analysis of responses shows trends in the sample, some individual responses were very revealing. One participant had buried triplets three years before and reported that she still grieved intensely. Her response to the miscarriage cue was "loss, loss, loss". Another respondent had experienced eight pregnancy losses. Years of pain and repeated loss are encapsulated in her response to the pregnancy cue: "the scanner, doctors' fingers, that face 'we're really sorry'".

Another respondent with experience of multiple miscarriage failed to supply any responses to the pregnancy cue, stating: "I'm not a words person." This anomia was not apparent when she responded instantly to the miscarriage cue: "bleeding, pain, frustration."

### **3. Women's emotional reactions to the index miscarriage**

Women's reported emotional reactions immediately following the miscarriage show that while the intensity of emotions was highly variable (as evidenced by the standard deviations shown in Table 19) several negative emotions predominated. Sadness, or depression were cited by three-quarters of the sample. The event also elicited reactions of anger in a quarter of the sample. Fear, anxiety and worry were experienced by nearly 23%. For most this derived from the medical procedures, and anxiety about the outcome of the pregnancy. However for some their anxiety was related to their fears about their future fertility.

Reactions of loss or deprivation were also common. While some women were grieving for the lost pregnancy, they were also engaging in prospective mourning (Leon, 1986b) as shown by reactions such as "hopes and dreams shattered", and "lost dreams". Leon (1986b) views the grieving reaction subsequent to perinatal loss as differentiated by prospective, rather than retrospective mourning. Retrospective mourning involves letting

go of past memories of a person, whereas prospective mourning involves giving up "wishes, hopes and fantasies about one who could have been and never was", (Leon, 1986b, p.322).

#### 4. Other losses experienced through miscarriage

Of the 56% who thought they had failed in some way through having a miscarriage, three women thought they had failed their baby, and six women specified that they thought they had failed various others including other children expecting a sibling, grandparents, and one woman said she had not lived up to her community's expectations. Several authors have commented that perinatal loss causes women to question their adequacy in a reproductive sense (Helmrath & Steinitz, 1978; Lewis, 1980). Luker (1975) comments that connotations of the pregnant state include fertility, femininity, adulthood, and independence, thus, when a woman loses a baby, concomitant losses may be her newly acquired pregnant role and status (Lovell, 1983). Other associated losses attendant upon the loss of a biological child identified by Conway and Valentine (1987) and mentioned by participants in the present study included the experience of pregnancy, childbirth and parenting.

#### 5. Relationships and miscarriage

For many women, some of the impact of a pregnancy or miscarriage may rest in the role and relationship changes these roles may present. For respondent 45, her miscarriage signalled the end of her marriage: "...it made me recognise some truths about my marriage. It made me real." Several participants selected terms relating to relationships in response to the pregnancy cue in particular: eg partnership, maternal, responsibility, dependency, being a vessel, whanaungatanga [family relationships] (Rikihana, 1992) manaakitia [taking care of] (Karetu, 1989).

#### 6. Attachment and miscarriage

A popular notion in the pregnancy loss literature which has been alluded to is that the earlier the loss, the less the

significance. It is acknowledged that only two items (extent of wanting the baby and extent of attachment to the idea of a baby) measured attachment, rather than a full-scale attachment inventory. However the present study's finding that gestational age was not correlated with attachment, is of potential importance. Although the situation of late perinatal loss can be more traumatic for some people, and provokes more sympathy in onlookers because of the presence of a visible baby to mourn, individuals' reactions vary greatly. Examples which illustrate contrasting reactions are respondent 14, who reported feeling traumatised and totally inadequate after having two early losses, as she felt she was not capable of maintaining a pregnancy for even a short time. However, respondent 12 experienced her early miscarriage as less stressful both physically and mentally. One respondent experienced multiple losses at different stages of gestation. When offered the opportunity to bury her twelve-week old foetus, she declined as she felt it would be insulting to her earlier three and four-week embryos which she had not had the opportunity to bury. This is particularly interesting in view of the fact that this respondent was a Maori woman whose cultural beliefs were important for her.

## **7. Miscarriage in a woman's life cycle**

That for some women, spontaneous abortion is an unforgettable life event, is attested to by the case of a woman who responded to one of the newspaper advertisements. This woman (now aged 82) had an ectopic pregnancy in 1935. (She was interviewed but her data not included, due to the remoteness of the event).

Broadening the focus of the study to include women whose miscarriages were less recent led to some interesting findings about the nature of miscarriage in a woman's life cycle. Of the five respondents who had miscarried between 17 and 26 years previously, four reported an intense preoccupation with the event, which was not initiated by participation in the study. One 40 year old respondent had returned to the hospital where

she was treated to see her file and complain to the director about the treatment she received. One 55-year old respondent who felt she was denied the right to grieve after her miscarriage 21 years before, had completed a three-day mourning ritual for her miscarried foetus in the year prior to the interview. Another woman (after participating in the study) returned to the hospital to view her file and try (unsuccessfully) to find out the sex of the foetus miscarried 26 years before. Another woman reported that her daughter's recent 21st birthday had led her to think intensely about both her previous stillbirth and miscarriage.

#### **8. The importance of ectopic pregnancy**

The present study had included ectopic pregnancy under the rubric of spontaneous abortion, but it was not until the newspaper advertisements were reworded to specifically include ectopic pregnancy that women who had experienced ectopics presented. Two of these women said they felt that an ectopic pregnancy was not the same as a miscarriage. One woman also pointed out that there was even less information available for women in the situation of ectopic pregnancy, than miscarriage.

### **FUTURE RESEARCH ON PERINATAL LOSS**

#### **Attachment and miscarriage**

The attachment literature has been reviewed in Chapter III. It is clear that the impact of technological advances on this psychological process have not yet been measured. The debate in the psycho-obstetric literature as to the advisability of parents imaging their foetus on ultrasound scans illustrates this (Raskin, 1989). Ultrasound scans increase the reality of the foetus for the parents. This coupled with the fact that more sophisticated pregnancy tests are available which can diagnose pregnancy as early as two weeks since conception have obvious implications for attachment. Including questions about number of scans, and date of diagnosis of pregnancy, might expand knowledge about the attachment process and provide



information about differences in individuals' formation of attachment and hence differential reactions to perinatal loss.

### **The hospitalization variable**

The hospitalization variable has been referred to earlier. Since miscarriages are not recorded systematically in health statistics, unless women undergo surgery, it is impossible to know how many women undergo miscarriages without medical interventions. Hospitalization for minor gynaecological surgery itself has been shown to induce 'post-operative dysphoria' (Levy, 1987). Since many women reported hospital procedures as invasive, traumatic, and frightening, this may be exacerbating reactions to miscarriage. Until studies are done of both hospitalized and non-hospitalized women the contribution of the hospitalization variable to post-miscarriage reactions remains unknown.

### **Cultural issues**

In addition, one Maori respondent suggested that Maori women may be less likely than Pakeha to seek medical help in the situation of miscarriage. Murchie (1984) reporting on the Maori Women's Welfare League's study of the health of Maori women, notes that young Maori women, particularly urban young women and young mothers, are less likely to seek medical attention when sick. They may also be more likely to seek spiritual healing from a tohunga or a kaumatua.

These behaviours, and rituals accompanying perinatal loss and burial practices reveal some differences between Maori and Pakeha women in the situation of miscarriage. Qualitative studies undertaken by Maori researchers would add another dimension to miscarriage as experienced by New Zealand women.

### **Interviewing women subsequent to perinatal loss**

It is clear that many women find it difficult to talk to a stranger about perinatal loss. In some instances, women's readiness to disclose personal experiences may to a large extent depend on the attitudes and behaviours of the interviewer. In the present study, it made a difference for many women that the interviewer had experience of miscarriages, childbearing, and bringing up children. Oakley (1981) has discussed issues relating to interviewing women. Orthodox interviewing strategies are less appropriate for the situation of interviewing subsequent to intimate experiences such as perinatal loss. In this context, it is more important to facilitate an interactive communication, both to meet the ethical constraints imposed by the situation, and for optimal data collection.

### **PRACTICAL IMPLICATIONS OF THE RESEARCH**

Madden (1986) provided a useful list of recommendations for helpers and medical care providers for dealing with women in the situation of miscarriage. Perhaps the most important thing to remember is that reactions are highly individual, and a gesture which may be appreciated by one woman may be found unhelpful by another. For example, several women said they objected to having their babies termed 'foetuses' by medical staff. As one participant put it, "People don't walk around saying 'I'm having a foetus.' They say 'I'm having a baby.' They imagine a baby." Yet respondent seven did not appreciate having her pregnancy loss referred to as a baby, and found provision of information about burial rituals inappropriate and intrusive. She stated: "Emotive terms don't help. They should use appropriate terms for the woman."

To Madden's list of what not to say to women who have miscarried, could be added the cliché "it's nature's way." While many women came to accept their miscarriages were inevitable, and used this phrase, they did not appreciate hearing other people say it. It appears important that women



be allowed to engage in their own searches for meaning, downward and upward comparisons and selective evaluations such as "it could have been deformed" in their own time. Hearing such phrases from other people has the effect of dismissing their feelings about their miscarriage.

Both Pakeha and Maori women in the sample appreciated the opportunity to see foetal remains, and bury them with appropriate rituals. In this context, Irihapeti Ramsden in a recent interview commented that health care workers should take their cues from Maori women as to the disposal of the placenta, rather than imposing disposal options onto the patient (Ramsden, cited Catherall, 1993).

When asked "what would you want to tell other women who have miscarried" many women's responses suggested that validation of feelings and grief was crucial. Many respondents considered other women who had miscarried provided the most empathy and recommended joining support groups for miscarriage and stillbirth. Provision of information was also viewed as important, eg respondent 26 stated: "you need to be as informed as you can as to the reason." Viewing of foetal remains was seen by some as helpful. Respondent 32's suggestion for other women was: "See the baby if it's viable. Definitely."

## CONCLUSION

While the present study elected to focus specifically on attributions subsequent to miscarriage, the general exploratory focus has illustrated some significant aspects of women's reactions to miscarriage. A major problem with Madden's (1988) study, is that her results demonstrate more about her theoretical orientation than they do about the life event that is miscarriage. While some generalities can emerge from comparison of different life events, the attributes of the situation can powerfully shape an individual's attributions. Thus we should not expect internal or external attributions to have the same psychological implications across situations as

diverse as victimisation by technological disaster, rape, cancer, paralysis, and perinatal loss. Perinatal loss is a unique life event. This is clearly a view held by key researchers in the field, since psychometric instruments specific to perinatal loss have been designed and are being increasingly utilised to measure psychological properties inherent in perinatal loss.

The present study was conceptualized within a quantitative paradigm and some interesting quantitative data has emerged. However, as mentioned earlier, some aspects of perinatal loss may be more productively explored combining with a qualitative perspective. The ultimate goal of research in this field must be to benefit parents and families in the situation of perinatal loss.

## REFERENCES

- Abramson, L., Seligman, M., & Teasdale, J. (1978). Learned helplessness in humans : Critique and reformulation. *Journal of Abnormal Psychology*, 87, 49-74.
- Affonso, D.D., & Giles, H.R. (1979). Health problems complicating pregnancy. In A.L. Clark & D.D. Affonso (Eds.), *Childbearing: A nursing perspective* (2nd ed.), pp.659-676. Philadelphia: F.A. Davis.
- Alberman, E., Elliott, M., Creasy, M., & Dhadial, R. (1975). Previous reproductive history in mothers presenting with spontaneous abortions. *British Journal of Obstetrics and Gynaecology*, 82, 366-373.
- Andersen, M. L. (1993). *Thinking about women : Sociological perspectives on sex and gender* (3rd ed.). New York: Macmillan.
- Atkinson, J.M. (1993). The patient as sufferer. *British Journal of Medical Psychology*, 66, 113-119.
- Baker, M. A., & Quinkert, K. (1983). Women's reactions to reproductive problems. *Psychological reports*, 53, 159-166.
- Ballou, J.W. (1978). *The psychology of pregnancy*. Lexington, Mass.: D.C.Heath.
- Beer, A.E., Quebbeman, J.F., Ayers, J.W.T., & Haines, R.F. (1981). Major histocompatibility complex antigens, maternal and paternal immune responses, and chronic habitual abortions in humans. *American Journal of Obstetrics and Gynecology*, 141, 987-999.
- Benfield, D.G., Leib, S.A., & Vollman, J.H. (1978). Grief response of parents to neonatal death and parent participation in deciding care. *Pediatrics*, 62, 171-177.
- Berle, B.B., & Javert C.T., (1954). Stress and habitual abortion: Their relationship and the effect of therapy. *Obstetrics and Gynecology*, 3, 298-306.
- Bibring, G.L. (1959). Some considerations of the psychological processes in pregnancy. *Psychoanalytic Study of the Child*, 14, 113-121.

- Bibring, G.L., Dwyer, T.F., Huntington, D.S., & Valenstein, A. F. (1961). A study of the psychological processes in pregnancy and of the earliest mother-child relationship. *Psychoanalytic Study of the Child*, 16, 9-24.
- Borg, S., & Lasker, J. (1982). *When pregnancy fails* (2nd ed.). Routledge & Kegan Paul: London.
- Boston Women's Health Collective (1985). *The new our bodies our selves*. Melbourne: Penguin.
- Bourne, S. (1968). The psychological effects of stillbirths on women and their doctors. *Journal of the Royal College of General Practitioners*, 16, 103-112.
- Brett, C. (1993, August). Listeria hysteria. *North and South*, pp. 72-83.
- Brown, G.W., & Harris, T. (1982). Fall-off in the reporting of life events. *Social Psychiatry*, 17, 23-28.
- Bryant, H.E. (1985). Miscarriage: how to help in the crisis. *Canadian Family Physician*, 31, 1109-1116.
- Bulman, R. J., & Wortman, C.B. (1977). Attributions of blame and coping in the "real world": Severe accident victims react to their lot. *Journal of Personality and Social Psychology*, 35, 351-363.
- Callahan, E.J., Brasted, W.S., & Granados, J.L. (1983). Fetal loss and sudden infant death: Grieving and adjustment for families. In E.J. Callahan & K. McCluskey (Eds.), *Life-span developmental psychology - Non-normative life events* (pp. 148-166). New York: Academic Press.
- Campbell, S.B.G., & Taylor, P.M. (1979). Bonding and attachment: Theoretical issues. *Seminars in Perinatology*, 3, 3-13.
- Carlson, D.B., & LaBarba, R.C., (1979). Maternal emotionality during pregnancy and reproductive outcome: A review of the literature. *International Journal of Behavioral Development*, 2, 343-376.
- Catherall, S. (1993, August 14). The treaty at the bedside. *Dominion*, p.10.
- Chen, C. (1986). Early reproductive loss. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 26, 215-218.
- Clark, A.L. (1979). Abortion. In A.L. Clark & D.D. Affonso (Eds.), *Childbearing: A nursing perspective* (2nd ed.), (pp.919-937). Philadelphia: F.A. Davis.

- Condon, J.T. (1985). Therapy of the expectant family : the foetus as a force to be reckoned with. *Australian and New Zealand Journal of Family Therapy*, 6, 77-81.
- Condon, J.T., (1986). Management of established pathological grief reaction after stillbirth. *American Journal of Psychiatry*, 143, 987-992.
- Condon, J.T. (1987). Prevention of emotional disability following stillbirth. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 27, 323-329.
- Condon, J.T. (1993). The assessment of antenatal emotional attachment: Development of a questionnaire instrument. *British Journal of Medical Psychology*, 66, 167-183.
- Conway, P., & Valentine, D. (1987). Reproductive losses and grieving. *Journal of Social Work and Human Sexuality*, 6, 43-64.
- Corney, R.T., & Horton, F.T. (1974). Pathological grief following spontaneous abortion. *American Journal of Psychiatry*, 131, 825-827.
- Cranley, M.S. (1981). Development of a tool for the measurement of maternal attachment during pregnancy. *Nursing Research*, 30, 281-284.
- Cullberg, J. (1971). Mental reactions of women to perinatal death. In Morris, N. (Ed.), *Proceedings of the Third International Congress on Psychosomatic Medicine in Obstetrics and Gynecology* (pp. 326-329). Basel: Karger.
- Cuthbert, K., & Van Eden Long, S. (1987). *Coping with miscarriage*. Auckland: Reed Methuen.
- Day, R.D., & Hooks, D. (1987). Miscarriage: A special type of family crisis. *Family Relations*, 36, 305-310.
- DeFrain, J. (1986). *Stillborn: The invisible death*. New York: D.C. Heath.
- DeFrain, J. (1991). Learning about grief from normal families: SIDS, stillbirth, and miscarriage. *Journal of Marital and Family Therapy*, 17, 215-232.
- Deutsch, H. (1945). *The psychology of women, Vol.2: Motherhood*. New York: Grune & Stratton.
- Downey, G., Silver, R.C., & Wortman, C.B. (1990). Reconsidering the attribution-adjustment relation following a major negative event: Coping with the loss of a child. *Journal of Personality and Social Psychology*, 59, 925-940.

- Dunn, D.S., Goldbach, K.R.C., Lasker, J.N., & Toedter, L.J. (1991). Explaining pregnancy loss: Parents' and physicians' attributions. *Omega*, 23, 13-23.
- Ford, M., & Dolan, B.M. (1989). Bulimia associated with repeated spontaneous abortion. *International Journal of Eating Disorders*, 8, 243-245.
- Friedman, R., & Cohen, K.A. (1982). Emotional reactions to the miscarriage of a consciously desired pregnancy. In M. Notman, & C. Nadelson, (Eds.), *The woman patient, Vol.3: Aggression, adaptations and psychotherapy* (pp. 173-187). New York: Plenum Press.
- Friedman, T. (1989). Women's experiences of general practitioner management of miscarriage. *Journal of the Royal College of General Practitioners*, 39, 456-458.
- Friedman, T., & Gath, D. (1989). The psychiatric consequences of spontaneous abortion. *British Journal of Psychiatry*, 155, 810-813.
- Gath, D.H. (1987). The detection and assessment of depression in psychiatric research. *Psicopatologia*, 7, 211-216.
- Giles, P.F.H. (1970). Reactions of women to perinatal death. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 10, 207-210.
- Glass, R.H., & Golbus, M.S., (1978). Habitual abortion. *Fertility and Sterility*, 29, 257-265.
- Goldbach, K.R.C., Dunn, D.S., Toedter, L.S., & Lasker, J.N. (1991). The effects of gestational age and gender on grief after pregnancy loss. *American Journal of Orthopsychiatry*, 61, 461-467.
- Grimm, E., (1962). Psychological investigation of habitual abortion. *Psychosomatic Medicine*, 24, 369-378.
- Haines, H. (1983). *Mental health for women*. Auckland: Reed Methuen.
- Hall, R.C.W., Beresford, T.P., & Quinones, J.E. (1987). Grief following spontaneous abortion. *Psychiatric Clinics of North America*, 10, 405-420.
- Hamilton, S.M. (1989). Should follow-up be provided after miscarriage? *British Journal of Obstetrics and Gynaecology*, 96, 743-745.
- Hardin, S.B., & Urbanus, P. (1986). Reflections on a miscarriage. *Maternal Child Nursing Journal*, 15, 23-30.



- Harris, C.C. (1984). Dysfunctional grieving related to childbearing loss: A descriptive study. *Health Care for Women International*, 5, 401-425.
- Helmrich, T.A., & Steinitz, E.M. (1978). Death of an infant: Parental grieving and the failure of social support. *Journal of Family Practice*, 6, 785-790.
- Helstrom, L., & Victor, A. (1987). Information and emotional support for women after miscarriage. *Journal of Psychosomatic Obstetrics and Gynaecology*, 7, 93-98.
- Herz, E. (1984). Psychological repercussions of pregnancy loss. *Psychiatric Annals*, 14, 454-457.
- Hey, V., Itzin, C., Saunders, L., & Speakman, M.A. (1989). (Eds.) *Hidden loss: Miscarriage and ectopic pregnancy*. London: The Women's Press.
- Hutti, M.H. (1986). An exploratory study of the miscarriage experience. *Health Care for Women International*, 7, 371-389.
- Ivker, B. (1985). Postmiscarriage counseling. *Medical Aspects of Human Sexuality*, 19, 124.
- Jackman, C., McGee, H.M., & Turner, M. (1991). The experience and psychological impact of early miscarriage. *Irish Journal of Psychology*, 12, 108-120.
- Janoff-Bulman, R. (1979). Characterological self-blame: Inquiries into depression and rape. *Journal of Personality and Social Psychology*, 37, 1798-1809.
- Janoff-Bulman, R., & Schwartzberg, S.S. (1991). Toward a general model of personal change. In C.R. Snyder, & D. R. Forsyth (Eds.), *Handbook of Social and Clinical Psychology* (pp. 408-508). New York: Pergamon Press.
- Kaffman, M., Elizur, J., & Harpazy, L. (1982). An 'epidemic' of spontaneous abortion: Psychosocial factors. *Israeli Journal of Psychiatry and Related Sciences*, 19, 239-246.
- Kaij, L., Malmquist, A., & Nilsson, A. (1969). Psychiatric aspects of spontaneous abortion-II. The importance of bereavement, attachment and neurosis in early life. *Journal of Psychosomatic Research*, 13, 53-59.
- Kaplan, H.I., & Sadock, B.J. (1988). *Synopsis of psychiatry* (5th ed.). Baltimore: Williams & Wilkins.
- Karetu, S.T., (1989). *Te reo rangatira* (3rd ed.). Wellington: Government Print.



- Kennell, J.H., Slyter, H., & Klaus, M.H. (1970). The mourning response of parents to the death of a newborn infant. *New England Journal of Medicine*, 283, 344-349.
- Khong, T.Y., Liddell, H.S., & Robertson, W.B. (1987). Defective haemochorial placentation as a cause of miscarriage: a preliminary study. *British Journal of Obstetrics and Gynaecology*, 94, 649-655.
- Kirk, E.P. (1984). Psychological effects and management of perinatal loss. *American Journal of Obstetrics and Gynecology*, 149, 46-51.
- Kirkley Best, E., & VanDevere, C. (1986). The hidden family grief: An overview of grief in the family following perinatal death. *International Journal of Family Psychiatry*, 7, 419-437.
- Kitzinger, S. (1983). *Women's experience of sex*. London: Penguin.
- Kitzinger, S. (1987). *Pregnancy and childbirth* (2nd ed.). Sydney: Doubleday.
- Klaus, M.H., & Kennell, J.H. (1976). *Maternal-infant bonding*. St Louis, Missouri: Mosby.
- Kline, J., Stein, Z., Strobino, B., Susser, M., & Warburton, D. (1977). Surveillance of spontaneous abortions: Power in environmental monitoring. *American Journal of Epidemiology*, 106, 345-350.
- Knapp, R.J., & Peppers, L.G. (1979). Doctor-patient relationships in fetal/infant death encounters. *Journal of Medical Education*, 54, 775-780.
- Kumar, R. (1982). Neurotic disorders in child-bearing women. In I.F. Brockington & R. Kumar (Eds.), *Motherhood and mental illness* (pp. 71-118). London: Academic Press.
- Lake, M., Knuppel, R.A., Murphy, J., & Johnson, T.M. (1983). The role of a grief support team following stillbirth. *American Journal of Obstetrics and Gynecology*, 146, 877-881.
- Lasker, J.N., & Toedter, L.J. (1991). Acute versus chronic grief: The case of pregnancy loss. *American Journal of Orthopsychiatry*, 61, 510-523.
- Lau, R.M. (1982). Origins of health locus of control beliefs. *Journal of Personality and Social Psychology*, 42, 322-334.
- Leon, I.G. (1986a). Intrapsychic and family dynamics in perinatal sibling loss. *Infant Mental Health Journal*, 7, 200-213.

- Leon, I.G. (1986b). Psychodynamics of perinatal loss. *Psychiatry*, 49, 312-324.
- Leppert, P.C. & Pahlka, B.S. (1984). Grieving characteristics after spontaneous abortion: A management approach. *Obstetrics and Gynecology*, 64, 119-122.
- Lerner, M.J. (1980). *The belief in a just world: A fundamental delusion*. New York: Plenum Press.
- Levy, V. (1987). The maternity blues in post-partum and post-operative women. *British Journal of Psychiatry*, 151, 368-372.
- Lewis, E. (1979a). Inhibition of mourning by pregnancy: Psychopathology and management. *British Medical Journal*, 2, 27-28.
- Lewis, E. (1979b). Mourning by the family after a stillbirth or neonatal death. *Archives of Disease in Childhood*, 54, 303-306.
- Lewis, E., & Page, A. (1978). Failure to mourn a stillbirth: An overlooked catastrophe. *British Journal of Medical Psychology*, 51, 237-241.
- Lewis, H. (1980). Effects and implications of a stillbirth or other perinatal death. In B.L. Blum (Ed.), *Psychological aspects of pregnancy, birthing and bonding* (pp. 308-323). New York: Human Sciences Press.
- Liddell, H.S., Pattison, N.S. & Zanderigo, A. (1990). Recurrent miscarriage: Outcome after supportive care in early pregnancy. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 31, 320-322.
- Llewelyn, S., & Osborne, K. (1990). *Women's lives*. London: Routledge.
- Lovell, A. (1983). Some questions of identity: Late miscarriage, stillbirth, and perinatal loss. *Social Science Medicine*, 17, 755-761.
- Luker, K. (1975). *Taking chances: Abortion and the decision not to contracept*. Berkeley: University of California Press.
- Lundin, T. (1985). Morbidity following sudden and unexpected bereavement. *British Journal of Psychiatry*, 144, 84-86.
- Mackay, E.G., Beischer, N.A., Cox, L.W., & Wood, C. (1983). *Illustrated textbook of gynaecology*. Sydney: Holt-Saunders.

- Madden, M.E. (1986, July). The roles of emotional support and medical information following pregnancy loss. Paper presented at the World Congress of Victimology, Orlando, Florida.
- Madden, M.E. (1988). Internal and external attributions following miscarriage. *Journal of Social and Clinical Psychology*, 7, 113-121.
- Madden, M.E. (1990, February). The variety of emotional reactions to miscarriage. Paper presented at conference on Feminist Issues in Psychology, Rhode Island Association for Women in Psychology.
- Madden, M.E., & Janoff-Bulman, R. (1981). Blame, control, and marital satisfaction: Wives' attributions for conflict in marriage. *Journal of Marriage and the Family*, 42, 841-854.
- Maginness, A. (1990). *An exploratory study of the self-blaming response in rape victims*. Unpublished Master's thesis, Massey University, Palmerston North.
- Major, B., Mueller, P., & Hildebrandt, K. (1985). Attributions, expectations, and coping with abortion. *Journal of Personality and Social Psychology*, 48, 585-599.
- Malmquist, A., Kaij, L., & Nilsson, A. (1969). Psychiatric aspects of spontaneous abortion-I. A matched control study of women with living children. *Journal of Psychosomatic Research*, 13, 45-51.
- Mandell, F., & Wolfe, L.C. (1975). Sudden infant death syndrome and subsequent pregnancy. *Pediatrics*, 56, 774-776.
- Mandy, A.J., Mandy, T.E., Farkas, R., Scher, E., & Kaiser, I. (1950). The emotional aspects of emotional and gynecologic disorders. *American Journal of Obstetrics and Gynecology*, 60, 605-615.
- Mann, E.C. (1956). Psychiatric investigation of habitual abortion. *Obstetrics and Gynecology*, 7, 589-601.
- Mann, E.C. (1959). The role of emotional determinants in habitual abortion. *Surgical Clinics of North America*, 37, 447-458.
- Matlin, M. (1987). *The psychology of women*. New York: Holt, Rinehart & Winston.
- May, B. (1991). Diabetes. In M. Pitts & K. Phillips (Eds.), *The psychology of health: An introduction* (pp. 214-230). London: Routledge.

- McAll, K., & Wilson, W.P. (1987). Ritual mourning for unresolved grief after abortion. *Southern Medical Journal*, 80, 817-821.
- McGuire, J. (1991). Health, illness, and the family. In M. Pitts & K. Phillips (Eds.), *The psychology of health: An introduction* (pp. 231-247). London: Routledge.
- Mead, M., & Newton, N. (1967). Cultural patterning of perinatal behaviour. In S.A. Richardson, & A.F. Guttmacher (Eds.), *Childbearing - Its social and psychological aspects* (pp. 164-169). Baltimore: Williams & Wilkins.
- Miller, D. T., & Porter, C.A. (1983). Self-blame in victims of violence. *Journal of Social Issues*, 39, 139-152.
- Miller, W.B. (1983). Chance, choice, and the future of reproduction. *American Psychologist*, 38, 1198-1205.
- Mishell, D.R. (1992). Review of "Antiphospholipid antibodies and recurrent pregnancy loss." In Mishell, D.R., Kirschbaum, T.H., & Morrow, C.P. (Eds.), *1992 Yearbook of Obstetrics and Gynecology* (p.429). St Louis, Missouri: Mosby.
- Moscarello, R. (1989). Perinatal bereavement support service: Three-year review. *Journal of Palliative Care*, 5, 12-18.
- Mueller, P., & Major, B. (1989). Self-blame, self-efficacy, and adjustment to abortion. *Journal of Personality and Social Psychology*, 57, 1059-1068.
- Murchie, E. (1984). *Rapuora: Health and Maori Women*. Wellington: Maori Women's Welfare League.
- Neugebauer, R. (1989). The effects of research interviews on depressive symptoms in the six weeks following reproductive loss. In B. Cooper & T. Helgason (Eds.), *Epidemiology and the prevention of mental disorders* (pp. 240-252). London: Routledge.
- Niven, C.A. (1992). *Psychological care for families before, during and after birth*. London: Butterworth/Heinemann.
- Oakley, A. (1981). Interviewing women: a contradiction in terms. In H. Roberts, (Ed.), *Doing feminist research* (pp. 30-61). Boston: Routledge.
- Oakley, A., McPherson, A., & Roberts, H. (1990). *Miscarriage* (2nd ed.). London: Penguin.
- Peppers, L.G., & Knapp, R.J. (1980). Maternal reactions to involuntary fetal/infant death. *Psychiatry*, 43, 155-159.
- Perloff, L.S. (1983). Perceptions of vulnerability to victimization. *Journal of Social Issues*, 39, 1983, 41-61.

- Pizer, H., & Palinski, C.O. (1981). *Coping with a miscarriage*. London: Jill Norman.
- Poland, B.J., & Lowry, M.B. (1974). The use of spontaneous abortuses and stillbirths in genetic counselling. *American Journal of Obstetrics and Gynecology*, 118, 322-326.
- Poland, B.J., Miller, J.R., Jones, D.C., & Trimble, B.K. (1977). Reproductive counselling in patients who have had a spontaneous abortion. *American Journal of Obstetrics and Gynecology*, 127, 685-691.
- Raskin, V.D. (1989). Influence of ultrasound on parents' reaction to perinatal loss. (Letter to the editor). *American Journal of Psychiatry*, 146, p. 1646.
- Reader, F. (1989). The reasons for miscarriage and ectopic pregnancy. In V. Hey, C. Itzin, L. Saunders, & M.A. Speakman (Eds.), *Hidden loss: Miscarriage and ectopic pregnancy* (pp. 105-135). London: The Women's Press.
- Reginald, P.W., Beard, R.W., Chapple, J., Forbes, P.B. Liddell, H.S., Mowbray, J.F., & Underwood, J.L. (1987). Outcome of pregnancies progressing beyond 28 weeks gestation in women with a history of recurrent miscarriage. *British Journal of Obstetrics and Gynaecology*, 94, 643-648.
- Reinharz, S. (1988). What's missing in miscarriage? *Journal of Community Psychology*, 16, 84-103.
- Rikihana, H.T. (1992). *He Purongo Tohutohu o te reo Maori me ona ritenga: A trainer's guide to Maori language and custom*. Auckland: Kohia Teachers Centre.
- Rosenblatt, P.G., & Burns, L.H. (1986). Long-term effects of perinatal loss. *Journal of Family Issues*, 7, 237-253.
- Rowe, J., Clyman, R., Green, C., Mikkelsen, C., Haight, J., & Ataide, L. (1978). Follow-up of families who experience a perinatal death. *Pediatrics*, 62, 166-170.
- Rubin, R. (1975). Maternal tasks in pregnancy. *Maternal Child Nursing Journal*, 4, 143-153.
- Santrock, J.W., & Bartlett, J.C. (1986). *Developmental psychology: A life-cycle perspective*. Dubuque, Iowa: Wm C. Brown.
- Seibel, M., & Graves, W.L. (1980). The psychological implications of spontaneous abortions. *Journal of Reproductive Medicine*, 25, 161-165.
- Shapiro, J. (1989). *Ourselves, growing older: Women ageing with knowledge and power*. London: Fontana.



- Simon, N.M., Rothman, D., Goff, J.T., & Senturia, A.G. (1969). Psychological factors related to spontaneous and therapeutic abortion. *American Journal of Obstetrics and Gynecology*, 104, 799-808.
- Smith, N.C. (1988). Epidemiology of spontaneous abortion. *Contemporary Review of Obstetrics and Gynaecology*, 1, 43-48.
- Smith, P.B., Weinman, M., & Malinak, L.R. (1984). Adolescent mothers and fetal loss, what is learned from experience? *Psychological Reports*, 55, 775-778.
- Stack, J.M. (1980). Spontaneous abortion and grieving. *American Family Physician*, 21, 99-102.
- Stack, J.M. (1984). The psychodynamics of spontaneous abortion. *American Journal of Orthopsychiatry*, 54, 162-167.
- Stirrat, G.M. (1990). Recurrent miscarriage I: Definition and epidemiology. *Lancet*, 336, 673-5.
- Stray-Pedersen, B. & Stray-Pedersen, S. (1984). Etiologic factors and subsequent reproductive performance in 195 couples with prior history of habitual abortion. *American Journal of Obstetrics and Gynecology*, 148, 140-146.
- Taylor, S.E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Journal of Obstetrics and Gynecology*, 148, 140-146.
- Taylor, S.E., Wood, J.V., & Lichtman, R.F. (1983). It could be worse: Selective evaluation as a response to victimization. *Journal of Social Issues*, 39, 19-40.
- Theut, S. K., Pedersen, F.A., Zaslow, M.J., Caine, R.L., Rabinovich, B.A., & Morihisa, J.M. (1989). Perinatal loss and parental bereavement. *American Journal of Psychiatry*, 146, 635-639.
- Theut, S.K., Pedersen, F.A., Zaslow, M.J., & Rabinovich, B.A. (1988). Pregnancy subsequent to perinatal loss: Parental anxiety and depression. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27, 289-292.
- Theut, S.K., Zaslow, M.J., Rabinovich, B.A., Bartko, J.J., & Morihisa, J.M. (1990). Resolution of parental bereavement after a perinatal loss. *Journal of the American Academy of Child and Adolescent Psychiatry*, 29, 521-525.
- Travis, C.B. (1988). *Women and health psychology: Mental health issues*. Hillsdale, New Jersey: Erlbaum.



- Tupper, C., Moya, F., Stewart, L.C., Weil, R.J., & Gray, J.D. (1957). The problem of spontaneous abortion I. A combined approach. *American Journal of Obstetrics and Gynecology*, 73, 313-321.
- Tupper, C., & Weil, R.J. (1962). The problem of spontaneous abortion. IX. The treatment of habitual aborters by psychotherapy. *American Journal of Obstetrics and Gynecology*, 83, 421-428.
- Veit, C.T., & Ware, J.E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology*, 51, 730-742.
- Wall-Haas, C.L. (1985). Women's perceptions of first trimester spontaneous abortion. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 14, 50-53.
- Weaver, R.H., & Cranley, M.S. (1983). An exploration of paternal-fetal attachment behaviour. *Nursing Research*, 32, 68-72.
- Weil, R.J., & Stewart, L.C. (1957). The problem of spontaneous abortion III. Psychosomatic and interpersonal aspects of habitual abortion. *American Journal of Obstetrics and Gynecology*, 73: 2, 322-327.
- Welsh, R. (1993, August). Trials showing early signs of success. *Next*, p.104.
- Wolff, J.R., Nielson, P.E., & Schiller, P. (1970). The emotional reaction to a stillbirth. *American Journal of Obstetrics and Gynecology*, 108, 73-77.
- Woods, N.F., & Dery, G.K. (1979). Sexuality during pregnancy and lactation. In N.F. Woods (Ed.), *Human sexuality in health and illness* (pp. 193-214). St. Louis, Missouri: Mosby.
- Wortman, C.B., & Silver, R.C. (1989). The myths of coping with loss. *Journal of Consulting and Clinical Psychology*, 57, 349-357.

## Appendix A

## INTERVIEW SCHEDULE

## I. CIRCUMSTANCES OF THE MISCARRIAGE

1. Would you like to tell me about your miscarriage?  
How long ago did it happen?  
How many weeks pregnant were you?  
What happened during the course of the miscarriage? Did you see a doctor? If not, did you have a pregnancy test?  
How old were you at the time of the miscarriage?  
What had the course of pregnancy been like up till then?

2. To what extent did you want to have a baby before your miscarriage?

1 2 3 4 5 6 7  
Not at all Completely

3. To what extent was this pregnancy planned?

1 2 3 4 5 6 7  
Not at all Completely

4. Had you ever been pregnant before the miscarriage?

Outcome:

Details of children:

Ages:

Terminations (only if participant volunteers such information):

5. How attached were you to the idea of having a baby before your miscarriage?

1 2 3 4 5 6 7  
Not at all Completely

## II. ATTRIBUTIONS OF RESPONSIBILITY

6. In general, why do you think women miscarry?

7. More specifically, why do you think you miscarried?

8. To what extent do you think each of the following factors were responsible for the miscarriage?

## Youself

1 2 3 4 5 6 7  
Not at all Completely

Your partner

1 2 3 4 5 6 7

Not at all Completely

Other people

1 2 3 4 5 6 7  
Not at all Completely

Chance

1 2 3 4 5 6 7  
Not at all Completely

9. Do you feel, or did you feel, at any time, that you were personally responsible in some way for the miscarriage? Did you blame yourself in any way for the miscarriage?
10. To what extent do you think the miscarriage occurred:
- a) because of the kind of person you are physically (constitutional factors)
- 1 2 3 4 5 6 7  
Not at all Completely
- b) because of the kind of personality you have (i.e. character traits)?
- 1 2 3 4 5 6 7  
Not at all Completely
- c) because of anything you did (i.e. behaviours you engaged in?)
- 1 2 3 4 5 6 7  
Not at all Completely
11. Is there anything you feel you would do differently or not do in a future pregnancy, after having miscarried?
12. Has the miscarriage led you to believe you failed in some way? (Failed yourself? Failed others? How?)
13. Do you blame anyone else for the miscarriage? If so, who, why, and to what extent?
- 1 2 3 4 5 6 7  
Not at all Completely
14. To what extent can you do anything to avoid a miscarriage?
- 1 2 3 4 5 6 7  
Not at all Completely
15. What would you do?



B. 1 2 3 4 5 6 7

Barely  
Noticeable Extremely  
Intense

C.

	1	2	3	4	5	6	7
Barely Noticeable						Extremely Intense	

26. Can you explain for me why you feel as you do for each of these three emotions?

### III. PREPARATION/INFORMATION

27. To what extent had you considered the possibility of miscarrying prior to the event?

1 2 3 4 5 6 7  
Not at all To a great extent

28. At the time of the miscarriage, did you know of any friends or family members who had miscarried? Since the miscarriage have you heard of others who have miscarried?

29. Before the miscarriage occurred, how much factual information (eg about causes, treatment, prevalence) did you have?

1	2	3	4	5	6	7
None at all					A great deal of information	

30. How much factual information do you have about miscarriage now?

1 2 3 4 5 6 7  
None at all A great deal of  
information

31. After the miscarriage, did you actively seek information about miscarriage in general or your miscarriage in particular?

32. Did your doctor, or any medical staff who treated you, ever give you any sort of medical explanation as to what caused your miscarriage?

Yes - 33

No - 34

33. What were your feelings about the miscarriage, having received a medical reason as to its cause?

34. What were your feelings about the miscarriage, when no medical reason was available as to its cause?

35. To what extent did you receive good support from your partner at the time of the miscarriage and after?

1 2 3 4 5 6 7

Not at all Completely

36. To what extent do you think your partner blames you for the miscarriage?

1 2 3 4 5 6 7

Not at all Completely

37. To what extent did you receive good support from other family members at the time of your miscarriage?

1 2 3 4 5 6 7  
Not at all Completely

38. To what extent did you receive good support from friends?

1 2 3 4 5 6 7  
Not at all Completely

39. To what extent do you think any family members or friends blame you for the miscarriage?

1 2 3 4 5 6 7  
Not at all \_\_\_\_\_ Completely

40. To what extent did you receive, or are you receiving, good support from medical personnel, eg your GP or whoever treated you medically?

1 2 3 4 5 6 7  
Not at all Completely

41. Overall, then, to what extent did you receive, or are you receiving, good support from others around you?

1 2 3 4 5 6 7  
Not at all Completely

42. How often are there times that you want to talk about the miscarriage but don't?

If not, why not?

43. Who will openly talk about the miscarriage with you?

44. How often are there times that others want to talk about it with you, but don't?

1 2 3 4 5 6 7  
Not at all Completely

45. What would you want to tell other women who have miscarried?



46. Is there anything that anyone could have said to you, or done for you, which might have helped you at the time of your miscarriage?
47. If you were doing this study, are there any other questions you would ask?

The following questions are about how you feel, and how things have been with you over the last month. For each question, please circle a number for the one answer that comes closest to the way you have been feeling.

How happy, satisfied, or pleased have you been with your personal life during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
extremely happy extremely unhappy

☐

How much of the time have you felt lonely during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

☐

How often did you become nervous or jumpy when faced with excitement or unexpected situations during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, how much of the time have you felt that the future looks hopeful and promising?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

☐

How much of the time, during the past month, has your daily life been full of things that were interesting to you?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

☐

How much of the time, during the past month, did you feel relaxed and free of tension?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

☐

During the past month, how much of the time have you generally enjoyed the things you do?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

☐

During the past month, have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
not at all very much

☐

Did you feel depressed during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
very much not at all

☐

During the past month, how much of the time have you felt loved and wanted?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

How much of the time, during the past month, have you been a very nervous person?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

When you got up in the morning, this last month, about how often did you expect to have an interesting day?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

During the past month, how much of the time have you felt tense or "high-strung"?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

During the past month, have you been in firm control of your behaviour, thoughts, emotions, feelings?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
yes, very definitely no, I am very disturbed

During the past month, how often did your hands shake when you tried to do something?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

During the past month, how often did you feel that you had nothing to look forward to?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

How much of the time, during the past month, have you felt calm and peaceful?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

How much of the time during the past month, have you felt emotionally stable?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

How much of the time, during the past month, have you felt downhearted and blue?

☐

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of the time none of the time

How often have you felt like crying, during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, how often did you feel that others would be better off if you were dead?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

How much of the time, during the past month, were you able to relax without difficulty?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

During the past month, how much of the time did you feel that your love relationships, loving and being loved, were full and complete?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

How often, during the past month, did you feel that nothing turned out for you the way you wanted it to?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

How much have you been bothered by nervousness, or your "nerves", during the past month?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
extremely not at all

☐

During the past month, how much of the time has living been a wonderful adventure for you?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

How often, during the past month, have you felt so down in the dumps that nothing could cheer you up?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, did you ever think about taking your own life?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
very often never

☐

During the past month, how much of the time have you felt restless, fidgety, or impatient?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

During the past month, how much of the time have you been moody or brooded about things?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

How much of the time, during the past month, have you felt cheerful, lighthearted?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

During the past month, how often did you get rattled, upset, or flustered?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, have you been anxious or worried?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
extremely so not at all

☐

During the past month, how much of the time were you a happy person?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

How often during the past month did you find yourself having difficulty trying to calm down?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, how much of the time have you been in low or very low spirits?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
all of none of  
the time the time

☐

How often, during the past month, have you been waking up feeling fresh and rested?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
always never

☐

During the past month, have you been under or felt you were under any strain, stress, or pressure?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7  
yes, more than no, not  
I could bear at all

☐



## **A Project on How Women Feel After Miscarriage**

### **Information Sheet**

My name is Fiona Kennedy and I am a post-graduate student completing a Masters degree in Psychology at Massey University. As part of my degree requirements I am completing a research project looking at the area of miscarriage and how women who experience miscarriage feel about their experience, and exploring why they think the miscarriage occurred.

Thank you for showing interest in my research project.

If you agree to participate, the following explains what I would like you to do.

#### ***What I would like from you***

I would like to interview you, asking you questions about your pregnancy/miscarriage history and your thoughts and feelings about it. I would also like you to fill in a questionnaire. This is so that I can explore the connections between your thoughts and feelings and your miscarriage.

The interview should take around 45 minutes of your time, and the questionnaire about five minutes. In all the whole procedure should take 1 - 2 hours of your time.

You are free to withdraw your consent at any time. Also, you are free to refuse to answer any item or question you do not wish to.

#### ***What you can expect from me***

You have the right to complete confidentiality at all times. Consequently I will be the only person who knows your name and address, personal details, etc. The information you share will be used anonymously and you will not be mentioned individually. No participant will be identifiable in the finished thesis.

You are free to withdraw your consent to participation at any point. I would be happy to discuss any concerns you have about the study. I would appreciate any comments you may have on the study, and welcome any questions you may have about participation.

If you wish to be informed of the study's results, please let me know and I will send you feedback upon completion of the thesis.

Thank you for your interest

Fiona Kennedy



## Appendix D



**MASSEY  
UNIVERSITY**

Private Bag 11222  
Palmerston North  
New Zealand  
Telephone 0-6-356 9099  
Facsimile 0-6-350 5611

**FACULTY OF  
SOCIAL SCIENCES**

**200**

**DEPARTMENT OF  
PSYCHOLOGY**

My name is Fiona Kennedy and I am a graduate student at Massey University. I am at present seeking to interview women who have had a miscarriage as part of a study for my Masters thesis in psychology.

My interest in this area developed from experiencing two miscarriages some years ago, and finding subsequently that miscarriage was not a subject that was dealt with or talked about a lot, even though miscarriages are very common.

In the interview, I will be asking questions about your pregnancy/miscarriage history, and your thoughts and feelings about it. I would also like you to complete a questionnaire. This is so that I can explore the connection between your thoughts and feelings and the miscarriage.

Women can have a variety of reactions to miscarriage and while many women feel very comfortable talking about their experience it may be stressful or emotionally upsetting for some, so please consider these issues before deciding whether you want to participate.

If you do decide you want to participate, then I would like to interview you four to six weeks after your miscarriage. If you would like to contact me about the study, feel free to ring me at this number: 358 2358.

The information sheet overleaf outlines the confidentiality process, and your rights as a participant to withdraw your consent, decline to answer any questions and to be informed of the findings of the study.

If you would like to participate, or ask further questions about the study, please ring me at 358 2358.

Thank you for your interest

Fiona Kennedy  
Phone 358 2358

## Appendix E

5 May 1993



**MASSEY  
UNIVERSITY**

Private Bag 11222  
Palmerston North  
New Zealand  
Telephone 0-6-356 9099  
Facsimile 0-6-350 5611

**FACULTY OF  
SOCIAL SCIENCES**

**DEPARTMENT OF  
PSYCHOLOGY**

Dear Doctor

My name is Fiona Kennedy and I am currently doing a Masters thesis in Psychology on the subject of how women feel after miscarriage.

My study, which is a partial replication of Madden's (1988) study of a sample of American women, who had recently miscarried, explores the connections between women's beliefs about their miscarriage and their psychological well-being.

My study has received the full approval of both the Massey University Human Ethics Committee and the Manawatu/Wanganui Area Health Board Ethics Committee.

I would like to interview women who have miscarried (using the New Zealand definition of miscarriage) i.e. had a spontaneous abortion before 28 weeks gestation within the last 12 months. I do not want to interview women less than 4-6 weeks post miscarriage.

Material collected will be held confidentially. No participants will be identifiable in the finished thesis. Participants will be informed of the study's findings. All the standard ethical guidelines apply.

Attached are copies of my information sheet and a letter to prospective participants. I would be very grateful if you could display these on a noticeboard, and give any copies to women who may be interested in participating.

If you would like any further information about the study, please contact me at 3582358 (evenings best). Alternatively, my thesis supervisor, Cheryl Woolley, may be contacted at the Psychology Clinic, Massey University (3569099).

Thank you for your help.

Yours sincerely

**Fiona Kennedy**



MASSEY  
UNIVERSITY

Private Bag 11222  
Palmerston North  
New Zealand  
Telephone 0-6-356 9099  
Facsimile 0-6-350 5611

FACULTY OF  
SOCIAL SCIENCES

DEPARTMENT OF  
PSYCHOLOGY

*Informed Consent Form*

**Project Title:** Women's Attributions after Miscarriage

**Principal Investigator:** Fiona Kennedy  
Psychology Department  
Massey University

I have read the Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any time.

I also understand that I am free to withdraw at any time, and that I may decline to answer any particular question or item on the study.

I agree to provide information to the researcher on the grounds that it is completely confidential.

I agree to participate in this study.

Signed: \_\_\_\_\_

*Statement by Investigator:*

I have discussed with \_\_\_\_\_ the aims and procedures involved in this study.

Signed: \_\_\_\_\_ Investigator

Date: \_\_\_\_\_