THE EFFECT OF LENGTH OF PREGNANCY ON PSYCHOLOGICAL AND INTERPERSONAL FUNCTIONING FOLLOWING PERINATAL DEATH

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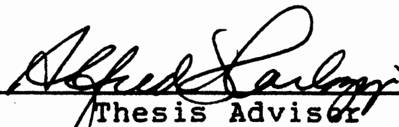

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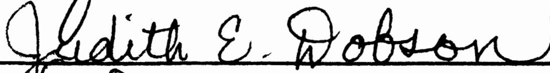

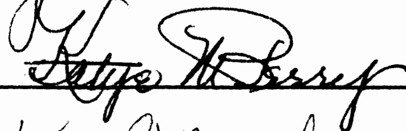

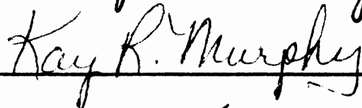

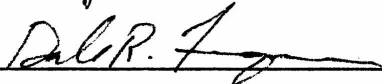

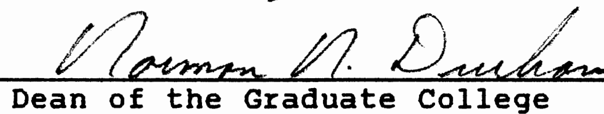

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Good-bye to Sarah

The cradle never filled, the breast never suckled,
The love I had to give was only yours.
The rattle never shook, the car seat never buckled,
Packed and returned new to the store.

The cry never heard, the name never mentioned
Leaves a void because only your mother remembers
And leaves me in dark and lonely isolation
For I dare not to forget what only I remember

Unfairness seems to abound, but I must go on
There are others and after all you would not have
    possessed me.
Had you lived, we would have shared and belonged
You would have been just another child in our family.

You do not have the right to this intense devotion
By not living, you have gained more than is your due.
And I feel drained of this grieving emotion
I feel I must look ahead to others than you.

Good-bye little one, I will always love you
And I will always remember
You must take your place as is your due
And I promise to remember.

Love,

Your mother
Arlene O'Neal Crawford Clements

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CHAPTER I

INTRODUCTION

Background of the Study

In recent times, the topic of death has become more openly discussed than in the past, and it is now an accepted idea that unresolved grief can contribute to psychopathology and family dysfunction (Parkes & Brown, 1972; Schoenberg, Carr, Peretz, & Kutsher, 1970). Lewis (1976), in reviewing reactions to a stillbirth, described unresolved grief reactions lasting ten years or more with severe disruption of family relationships and personal functioning. He attributed these atypical reactions to the painful emptiness and unreality of a stillbirth, which may be magnified by the management of the event in a maternity unit and later at home. He suggests this contributes to the baby not having an actual identity, and without a real object to mourn, the bereavement process may become hampered. Thus, Lewis (1976) described stillbirth as an "unreality and a nonevent." (p. 619).

Peppers and Knapp (1980) have classified perinatal death into four major categories: (a) Those occurring within the first year of life from a yet undetermined

cause, Sudden Infant Death Syndrome (SIDS); (b) those occurring during the first six months of life from some unknown cause, neonatal death; (c) death at the time of birth, stillbirth; and (d) those occurring during the prenatal period, miscarriage or spontaneous abortion. Ten to 20 percent of all pregnancies result in a miscarriage, or as medically referred to, a spontaneous abortion (Borg & Lasker, 1981). Translated into numbers, this means that about 300,000 American couples every year have a pregnancy that ends in miscarriage (Pizer & Palinski, 1980). Stillbirths occur at a rate of 9.8 per 1,000 births (United States Bureau of Census, 1979). In the United States, the mortality rate due to SIDS was 1.88 per 1,000 live births (Kotch & Cohen, 1985-86).

Quirk (1979) stated that perinatal loss, as one life crisis, can be distinctively difficult, in that it exemplifies not only the situational crisis of death but also the maturational crisis of failure at parenthood. People in crisis are generally more open and susceptible to the influence of others, especially from significant others in their social or professional spheres (Weiss, 1976). Vulnerability to secondary distress increases during a crisis because people are generally unprepared for their own reactions during stress (Weiss, 1976). Kennell (1978) noted a common reaction to the birth of a defective baby being the manifestation of intense guilt and anger such that small differences between parents

become magnified into major disruptions. As a result, Kennell (1978) noted separations and divorce may be frequent consequences.

Borg and Lasker (1980) noted that while miscarriage is the most common type of failed pregnancy, the grief associated with it is probably the least understood. When an infant is born that is sick, malformed, or dead, the effects on the woman can be very profound. This biological failure itself can become a loss over which the woman grieves (Peretz, 1970). Deutsch (1945) suggested that grief after a stillbirth or neonatal death is not the same as that after the loss of a beloved adult relative. Rather, she viewed it as the nonfullfillment of a wish-fantasy. For the family of a stillborn child, problems can be exacerbated due to a need to adapt to interrupted plans that reflect the absence of the child. Wilson and Soule (1981) suggest that a stillbirth can involve mourning a perceived failure of oneself to create.

Lovell (1983) found that health workers considered that the earlier the pregnancy failed, the lesser the loss, making miscarriages less sad than stillbirth, and stillbirth less sad than losing a baby who had lived. Klaus and Kennell (1976) believe it would be important for health care workers to realize that, in some women, affectional ties to their babies will begin or accelerate with the development of quickening and fetal movement. Peppers and Knapp (1980) compared self-reported grief

reactions to types of loss (miscarriage, stillbirth, and neonatal death) and concluded no quantifiable differences existed.

A basic hypothesis of life-events research is that the stressful nature of events may act as a precipitating factor in the onset of symptomatology within both the physical and the mental components of health (Williams, Ware, & Donald, 1981). Added to the significance of the life event of pregnancy on the marital relationship is the added dimension of possible infertility due to miscarriage. Compounding the physiological events that occur during miscarriage is the fact that most couples are rarely prepared for a loss during the pregnancy (Menning, 1977). Caplan (1961) is quoted as saying:

> If we know how families in crisis deal with the crisis problem in a healthy way, and if we can spot those who are showing signs of not dealing with it this way, our knowledge of the healthy ways of dealing with crises will allow us to intervene and to steer the latter families on the healthy path. What is very important is that this can be done without having to know why it is that unhealthy families were on the unhealthy path. (p. 19-20).

Culberg (1972) found that 19 of 56 mothers studied one to two years after the death of their neonates had developed severe psychiatric disorders. Among the reported symptoms were anxiety attacks, phobias, and

depressions. A preterm birth may be seen by the mother as a failure to nurture the fetus adequately and so the birth in this situation becomes a kind of guilt (Caplan, Mason, & Kaplan, 1965).

Definition of Terms

The following terms are used throughout this study.

(1) Miscarriage is operationally defined for this study as any confirmed pregnancy up to and including 20 weeks of gestation that spontaneously aborts (Borg & Lasker, 1981).

(2) Confirmed Pregnancy is operationally defined for this study as any pregnancy verified by blood tests, urinalysis, and/or physical examination by a physician (Hales & Creasy, 1982).

(3) Stillbirth is operationally defined for this study as any confirmed pregnancy from 21 to 40 weeks gestation that results in death before birth (Berezin, 1982).

(4) Life Crisis is a construct relating to the situation in which a person faces an obstacle to a life goal that is insurmountable using ordinary methods of problem-solving (Weiss, 1976).

(5) Perinatal Death includes four major categories of fatalities: stillbirth, Sudden Infant Death Syndrome, miscarriage or spontaneous abortion, and neonatal death (Peppers & Knapp, 1980). For the purpose of this study, only miscarriage and stillbirth were used in reference to perinatal death.

Purpose of the Study

The purpose of this study is to investigate whether the length of pregnancy prior to a perinatal death deferentially affects the woman's subsequent psychological symptoms and interpersonal family functioning. Peppers and Knapp (1980) found in their investigations that no quantifiable differences existed in the various types of loss (miscarriage, stillbirth, and neonatal death). Jolly (1976) believed that the loss of a one-pound infant should be accorded the same treatment as that of a full term infant. Helmrath and Steinitz (1978) suggested that families of stillbirths are at risk for pathological outcomes thus further suggesting a need to identify those families at risk. The nature of the death and perceived lack of societal support for the grief of these parents may cause severe problems leading not to reorganization but to pathological variants of grief (Helmrath & Steinitz, 1978). Therefore, this study was designed to answer the following question: Does length of pregnancy prior to perinatal death affect a woman's subsequent psychological and interpersonal functioning.

Significance of the Study

The information in the study could have relevance to health care practitioners, mental health professionals, and others in the helping professions who interact with women who have experienced a perinatal death. Information

gained may give insight into understanding the effects of a perinatal death and may suggest alternative coping strategies. Stack (1984) suggested that psychologists, psychiatrists, nurses, and social workers could benefit from awareness of the relatively common occurrence of delayed, unresolved, and pathological grief reactions that sometimes result from perinatal loss. This information may be particularly important for health professionals since, according to Kennell (1978), whatever is said to the parents in the period shortly after birth is usually indelibly imprinted on their minds and affects their view of the baby for years to come. Thus, it may be important to understand the effects of mourning a perinatal death and how a health professional may help facilitate the grief process.

Research Hypotheses

1. Length of pregnancy prior to perinatal death will have an effect on the woman's subsequent psychological functioning.

2. Length of pregnancy prior to perinatal death will have an effect on the woman's interpersonal functioning.

Limitations

Premorbid measures are not available because of the lack of prediction of who will experience this type of crisis. It is assumed that premorbid behavior is randomly

selected and equally distributed across all groups.

Self report measures provide information economically and with little expenditure of professional time (Holcomb, Adams, & Ponder, 1983). In addition, well-designed self report measures can provide systematically collected information that is suitable for actuarial methods of scoring and interpretation and allows for incorporation with other clinical data for a more complete evaluation (Derogatis, 1977).

Subjects obtained for this study are self-selective due to the limited avenues of obtaining clients, and do not represent as random a selection as possible. It is highly probable that self-selected participants will be better educated, more affluent, and more aware of their feelings than a more representative sample of bereaved parents would be (Miles & Demi, 1983-84). The nature of the volunteer participant may be that those experiencing less impact may most likely to volunteer.

Sample size is limited due to the percent of the population who actually experience this crisis. Grimm (1962) suggested that small sample size is a common limiting factor sometimes due to the small number of patients manifesting a certain obstetrical condition thus limiting the conclusions that can be drawn from such studies.

Delimitations

Age was restricted to a minimum 18 years. There was no maximum age restriction placed on this study.

Length of pregnancy prior to perinatal death considered for this study was from 3-6 weeks (when most pregnancies are confirmed) until 40 weeks, which includes miscarriage and stillbirth.

The time elapsed from occurrence of the event to participation in the study was limited to a six-month period. The rationale for choosing a time limit was to keep this variable equal across all groups and to control for the effects of time.

Marital status or a committed relationship was another restriction placed on subjects in this study since one of the variables being studied is the effect of the length of pregnancy prior to perinatal loss on the marital or family functioning.

CHAPTER II

REVIEW OF LITERATURE

The review of literature relevant to this study is presented in three parts. The first section summarizes the crisis literature with specific reference to pregnancy and its termination as potential crisis events. The second part reviews the grief and loss literature. The third section deals with the impact of perinatal death on the marital and family relationship.

Life Crises

Caplan (1961) defines crisis as a situation in which a person faces an obstacle to a life goal that is unconquerable using ordinary problem-solving mechanisms. Crisis experiences evoke a multiplicity of complex emotions that are not just painful for the individuals in crisis, but also diminish the individual's capacities to be effective in their problem-solving (Weiss, 1976). Menning (1980) further defines crisis as a disruption in the steady state, or a period of disequilibrium. She suggests there are elements common to any state of crisis:

> (a) A stressful event occurs that poses a threat which is insoluble in the immediate future; (b) the problem overtaxes the existing resources of the

person(s) involved because it is beyond traditional problem-solving methods; (c) the problem is perceived as a threat to important life goals of the person(s) involved; and (d) the crisis situation may reawaken unsolved key problems from both near the and distant past (p. 314).

Cassel (1974) formulated the hypothesis of bi-dimensionality among psychosocial determinants of disease. According to this hypothesis, there are two categories of social factors important to the etiology of disease: stressors, which increase susceptibility to disease, and social supports, which are protective or beneficial. One account for the effects of life change and social support can be developed by postulating an elemental human need for stability. Major life events and experiences of loss and bereavement, may be interpreted as affecting health through an undermining of the individuals sense of permanence and stability (Boyce, Jensen, James, & Peacock, 1983).

While certain individuals successfully negotiate life crises common to human beings, others may be unable to use crisis events as growth experiences (Quirk, 1979). Pregnancy as a life crisis takes place over a relatively short time, thereby focusing the attention of family and friends on the upcoming event of the birth. The sudden paradox of a perinatal death can be felt by all involved (Kirkley-Best & Kellner, 1982). Stack (1984) stated that

spontaneous abortion is a time of personal crisis when the woman is psychologically vulnerable. According to Stack (1984), because the process of spontaneous abortion has the dynamic characteristics of loss, the woman is subject to a grieving process and is vulnerable to the occurrence of prolonged, pathological, or unresolved grief reactions. Interpersonal loss is viewed by Rubin (1981) as a life crisis of great magnitude, which forces change upon the bereaved. As a consequence of the loss, the bereaved may undergo significant emotional and behavioral upheaval.

About 300,000 women, 10 to 15 percent of all pregnant women, miscarry every year (Hales & Creasy, 1982). According to Hales and Creasy (1982) early pregnancy losses often occur just as the mother-to-be is adjusting to the prospects of having a baby. For example, Kirkley-Best and Kellner (1982) observed that despite the difficulty that most women had in concretely visualizing the baby in early pregnancy, more than half began to engage in conversations with their husbands about the future of the child during the first trimester.

Menning (1977) suggested that possible infertility has often been found to be a complication of frequent miscarriages. Rosenfield and Mitchell (1979) emphasize the infertile couple as being in a crisis situation that places tremendous stress on patients either individually or as a couple. They summarized the pattern of emotional response to infertility as surprise, grief, anger,

isolation, denial, and acceptance. Menning (1980) further described reported feelings of the infertile couple, some were rational and others irrational. Surprise, denial, anger, isolation, guilt, and grief are confronted by most people attempting to work through their infertility. According to Menning (1980) occasionally grief may not result in resolution of the crisis because (a) there is not a recognizable loss so that couples may not realize that they are entitled to grieve, (b) the loss may be seen as socially unspeakable, (c) there may be uncertainty about the loss in that there could be a spontaneous pregnancy in any cycle and the moment of grief is elusive, and (d) there may be absence of a social support system due to the mobility of people away from loved ones they need for comfort.

Grief and Loss

The realities of life implicate all humans in some loss experience at one point or another in their lives (Stearns, 1984). Thus all human beings will experience loss at one time and find themselves in crisis. Observations in subhuman primates would indicate that dissolution of the mother-infant relationship is one of the most potent occasions for grief-like reactions (Averill, 1968). According to Alexy (1982), most bereaved parents claim that the intensity of their grieving lessens over time, but the impact of their loss is such that many

parents resign themselves to never being the same again. Adults usually experience intense mourning and grieving only when there is an intimate affectionate bond with the deceased, as with close relatives or friends (Kennell, Slyter, & Klaus, 1970).

Grief may be strong or weak, brief or prolonged, immediate or delayed, and particular aspects of it may be distorted; symptoms that usually cause little trouble may become major sources of distress (Parkes, 1972). Forrest (1973) noted that grief is usually intense and constant initially, and then gradually the twinges of guilt occur with lessening frequency. He further suggested that if the relationship was highly ambivalent, aggression directed toward the lost object may become directed at self. The result may be a lowering of self-esteem, guilt, and other symptoms frequently observed in depressed patients. The experience of loss can have a broad impact upon the bereaved. The individual's homeostatic patterns of intrapsychic, behavioral, and interpersonal functioning are upset (Rubin, 1981). Averill (1968) defines bereavement behavior as a stereotyped response pattern of psychological and physiological reactions displayed by an individual following the loss of a significant object, usually a loved one. Grief is a time of intense mental anguish and of reduced psychological and physiological resistance to stress (Averill, 1968). Bereavement refers to the fact

that one has been deprived of, lost, or experienced the removal of a person or object from their personal world. Mourning refers to the cultural or ethnic patterns of responses associated with bereavement (Averill, 1968; LaGrand, 1986).

Wambach (1985-86) describes the grief process as a social construct which serves to link the grief and the mourning of survivors. While grief focuses within the bereaved on reactions to loss, mourning focuses outside the person on the public expression of loss. Mourning as described by LaGrand (1986) is the process of resolving conflicts presented by change, and grief as the emotion of mourning. Peppers and Knapp, (1980) further defined grief as a highly variable emotional, psychological, physical, and social response to the loss of a loved one through death.

The pace of grief response as described by Bowlby (1980) and Parkes (1972) appears to follow a fourfold progression: (a) early shock and protest, in which there is a lack of overt reaction, (b) yearning and searching, in which the mourner physically and perceptually searches in a futile attempt to recover the lost person, (c) disorganization and despair, characterized by a general depression with increased affirmation of the loss, and (d) a gradual reconstruction and reorganization, in which a bereaved person begins to restructure their life and return to a premorbid level of functioning at least equal

to the pre-loss period.

The following types of grief are based upon analyses by Lindemann (1944) and Parkes (1965):

1. Normal grief: A stereotyped array of psychological and physiological reactions in which the three stages of shock, despair, and recovery can be delineated.

2. Exaggerated grief: An abnormally prolonged grief reaction, frequently with an intensification of one or more of the manifestations of normal grief. Neurotic features such as undue guilt and identification symptoms, are often associated with this type of grief.

3. Abbreviated grief: A short-lived but genuine grief reaction due to an immediate replacement of the lost object or to an unsufficient attachment to the lost object.

4. Inhibited grief: A lasting inhibition of many of the manifestations of normal grief, but with the appearance of other symptoms, for instance, somatic complaints, in their stead.

5. Anticipatory grief: Many of the symptoms of normal grief may result from an expected loss, with only an abbreviated reaction being manifested upon the actual loss.

6. Delayed grief: Normal or exaggerated grief may be delayed for an extended period of time, ranging up to years, especially if there are pressing responsibilities

to occupy the bereaved. A full grief reaction may eventually be initiated by some event related to the original loss; in the meantime, only an inhibited form of grief may be observed.

Lindemann (1944) identified guilt as one of the five points pathognomonic for so-called normal grief. He found that the bereaved searched the time prior to the death for evidence of failure to do right by the deceased. Lindemann (1944) acknowledged that a type of guilt is expressed by normal grieving but also identified a morbid form of grief reaction or agitated depression, in which bitter self-acusation and a need for punishment was present. According to Miles and Demi (1983-84) death causation guilt is a common source of guilt in grieving parents, since protection of one's child is considered a universal responsibility of parents.

Not everyone experiences the so-called stages associated with grief, nor is the emotional pain always so intense (LaGrand, 1986). The process of mourning a loss is complex. Horowitz (1978) observed that an individual's response to the loss depends on past experience with separation and loss, cultural and family definitions of appropriate responses, and the individualistic structure and level of development. The length of time required to mourn depends largely on the circumstances of the loss, personal meaning of the loss, the personality attributes and coping styles of the individual, and who is available

to help (Stearns, 1984).

Grief and Perinatal Death

One of the earliest and most notable investigations on stillbirth was conducted by Kennell, Slyter, and Klaus (1970). They observed the reactions of twenty mothers who had lost a newborn. Among those grieving mothers, they found that strong affectional ties had developed even before the mothers had touched or held their babies. Thus, even without physical contact, every mother mourned her loss of the fetus.

If loss is acknowledged by self and others, the normal process of mourning can and usually does take place. According to Stack (1984), guilt is a nearly universal feeling experienced by women suffering from a miscarriage. Explanations as to a cause are often inadequate or nonexistent, leading women to feel that they may have done something to cause the miscarriage (Stack, 1984). Horowitz (1978) observed that some teenagers whose pregnancies ended in miscarriage have tried to relieve the grief and mourning by soon becoming pregnant again. This finding was corroborated by Wambach (1985-86) who found in her study that many parents tried to relieve the guilt of losing a child by becoming pregnant again.

A stillborn baby or the loss of a pregnancy represents a unique loss because many parents often mourn

fantasies of an anticipated newborn rather than memories of a shared experience (Wilson & Soule, 1981).

The fact that depressive illness is often preceded by object-loss, real or symbolic, indicates that there may be a relationship between grief and at least some forms of clinical depression (Stenbach, 1965). Giles (1970) reported that the 40 women in his study who had lost infants during the perinatal period all showed emotional and physical reactions similar to those experiences following the death of an older, loved person. Jensen and Zahourek (1972) in a study of 25 women, reported that a significant number of mothers were still depressed as long as a year after losing their babies. An interdisciplinary team (Wolff, Nielson, & Schiller, 1970) studied 40 women who had lost a baby during or shortly after birth, for a three year span to determine the emotional reaction to the loss and the mechanism of resolution. These researchers observed that, even though none of the women developed significant psychiatric difficulties as a result, certain adjustment problems were evident. Some of these problems included making future plans and relationship problems.

Peppers and Knapp (1980) found that all mothers grieve regardless of the gestational age of the fetus. Different grief expressions relating to the type of loss were apparent. These authors found that depending upon the type of loss whether miscarriage, stillbirth, or neonatal death, the specific emotions experienced varied.

Feelings of anger and bitterness were the more common expressions of mothers who lost children after birth than those who miscarried. However, feelings of guilt and of failure as a woman were often more intense for those who miscarried or delivered stillborn babies (Peppers & Knapp, 1980).

Quirk (1979) saw healthy resolution of a grief crisis involving: (a) the correction of cognitive perception of the crisis or what is really happening, (b) management of affect through awareness of feelings and verbalizations that lead to tension release and expression of anger, (c) and development of skill in pursuing available resources or support systems. This is contrasted to what often happens to women who have experienced perinatal death. After the loss, the obstetrician may view his or her job as finished, and the pediatrician, having no infant to be concerned with, may never be involved. As a result, a mother may find herself without responsible medical support. Furthermore, according to Lovell (1983), her presence in the hospital is often viewed as disturbing and her management often takes little account of her potential vulnerability. Thus, the resolution of the grieving process may not be facilitated as adequately as possible by health professionals.

Rubin (1984-85) found that Sudden Infant Death Syndrome (SIDS) mothers referred to the lack of medical knowledge regarding the cause of death as the most

problematic aspect of the adaptation to loss. With SIDS, in the absence of a clear external disease process, the preoccupation with seeking a concrete cause of death to absolve the mother in her own mind is accompanied by a heightened level of guilt. Rubin (1984-85) further speculates that the total dependence of the infant on its primary caretaker and the failure to have fulfilled this parental responsibility may produce a sense of guilt. Kotch and Cohen (1985-86) noted that an autopsy report for parents of SIDS helped to document that the child died a natural death and helped to relieve some families of the feeling that somehow they were responsible for the death.

Though the pregnant woman's relationship with the fetus is symbiotic, the baby is termed by Wilson and Soule (1981) as a fantasized reality. Berezin (1982) stated that anger was a normal component of the response to loss, and expected that bereaved parents may, in addition to blaming God, fate, and/or themselves, direct hostilities toward the physician and nursing staff.
Researchers (Berezin, 1982; Kennell, Slyter, & Klaus, 1970) observed that parental anger and resentment are generally least when the following conditions apply:
(a) The parents are kept informed of their baby's progress and permitted to take part in critical decisions regarding withdrawal of life support and others issues of care, and (b) physicians, nurses, and other staff members allow their human compassion to surface and, instead of turning

away from the family, they openly display their values. There are two factors that contribute to the intensity and the unusual nature of the grief reactions of mothers and fathers over the loss of their infants: (a) The suddenness and unexpected nature of the loss; and (b) the way infant death is socially defined in our culture (Peppers & Knapp, 1980).

Impact of Perinatal Death

While the effects of a perinatal death will vary from individual to individual, there is an impact to some degree, on most parents involved. In the following section these effects are broken down into marital and family, social, and psychological functioning.

Marital and Family Functioning

As soon as the pregnancy is known to the prospective parents, many couples begin discussing various aspects of child rearing. Leifer (1980) proposes that this is a rehearsal of future roles as parents, and these conversations seem to represent a first step in the process of incorporating the baby into the marital relationship. Parents of a stillborn infant often find themselves alone in the grief (Wilson & Soule, 1981). No one else has shared their special and growing relationship with their baby. They further state that when memories can be shared, such as in the loss of a live-born child,

the bereaved person can find comfort in knowing others too are experiencing the loss of a person they love. However, in the case of an unborn baby, memories that parents can share with others are not left (Wilson & Soule, 1981).

Family health has been defined as its capacity to effectively cope with illness stress (Shapiro, 1983). In terms of coping, Shapiro (1983) noted some evidence that families able to deal with death openly and personally may experience less physical illness than those who do not. Families that coped well with death were found to have more open internal communication, discuss and make realistic plans, express feelings of sadness and loss as well as anger, guilt, and relief and basically attempt to deal with stress rather than deny it.

The father may experience essentially the same bonding process as does his wife but it usually happens more slowly, sometimes only becoming complete when caretaking begins (Klaus & Kennell, 1976). While every case has its unique characteristics, it appears that incongruent bonding and grieving in combination underlie most marital conflicts following an infant's death (Klaus & Kennell, 1976; Peppers & Knapp, 1980).

Husband-wife relationships often become strained after a perinatal death (Klaus & Kennell, 1976). This situation may result from breakdown in communications. According to some researchers this breakdown stems from different ways husbands and wives perceive their

circumstances and grieve their losses (Klaus & Kennell, 1976; Peppers & Knapp, 1980). When unexpected fetal or infant death occurs, husbands and wives often find themselves in a crisis situation unlike any they have previously faced. Peppers and Knapp (1980) observed that communication and sexuality are two major problems areas that most grieving husbands and wives have in common.

Social Functioning

Social circumstances may play a role in the relinquishing of grief (Parkes & Weiss, 1982). Often times, though grief continues, direct pressure may be placed upon a bereaved person by family and friends to come out of mourning (Parkes et al, 1982). Perhaps the belief that ending mourning will terminate the grief may be the motivation behind these social pressures. The parents' grief and mourning are often felt to be abnormal since others cannot readily see the attachment that existed between parent and child before birth (Kirkley-Best & Kellner, 1982).

Hare-Mustin (1979) stated that mourning is a time when family members experience increased conflicts, role confusion, and either isolation or overdependency. Alexy (1982) stated that bereaved parents may at times feel extremely lonely but yet may resist others' attempts to provide social support.

Alexy (1982) noted that:

> The experience among bereaved parents, however is usually intensified because of the tenacious emotional bonding between parent and child, the perception of the death as highly unnatural, and the perception among many bereaved parents that outside persons in society often behave in ways that do not facilitate grieving. (p. 499)

According to Kirkley-Best, Kellner, & Ladue (1984), when a mother gives birth to a stillborn infant, the reaction of others, specifically doctors, nurses, and family members may influence the processes of grief. In the late 1970's, D. Gary Benfield and his colleagues at the Children's Hospital Medical Center at Akron, Ohio, inspected the grief responses of fifty families to newborn death. The findings indicated that parental grief was not significantly affected by such variables as birthweight, duration of life, extent of parent-infant control, previous loss, or parental age (Hales & Creasy, 1982) but rather the attitude and behavior of friends, family, and hospital personnel were potent variables with considerable influence. The unusual character of the grief response in relation to infant loss is determined by the way infant death is defined and perceived in our culture (Kirkley-Best, et al., 1984). The community consisting of friends, neighbors, and even relatives, neither perceive nor respond to infant death in the same manner as that of an older child (Peppers & Knapp, 1980). Peppers and Knapp

further assert that the community's expectation of the mother's reaction to this distressing event should be short-lived or temporary thus depriving the mother of full resolution of her grief.

Davidson (1977) stated that changes in family structure and birth practices in sophisticated societies may result in more social isolation and less effective psychological support for expectant mothers than in the past. Davidson (1977) was referring only to the state of pregnancy. According to Stack (1984), the isolation and social support is further compounded when the pregnancy results in perinatal death.

According to Siebel and Taymor (1982) as recently as 18 years ago, 40% to 50% of infertility cases were thought to be caused by emotional factors. The same logic has been used to examine the psychological well-being of women who miscarry or habitually abort as reflected by several studies of the sixties and early seventies era (Simon, Rothman, Goff & Senturia, 1968; Grimm, 1962). Hormonal imbalances, as well as other newly discovered causes or speculations, are now attributed as possible causes of infertility and spontaneous abortion (Seibel & Taymor, 1982).

A recent study by Kirkley-Best et al. (1984) revealed that physician's attitudes towards patients experiencing stillbirth were changing toward a recognition of this experience as being traumatic. Their study found

should see their stillborn infant (most adding "at their discretion"), and a smaller, though still sizable majority, felt that a mother should be offered the opportunity to hold her infant as well (Kirkley-Best et al, 1984). They further suggest that the lack of recognition of the myriad of normal symptoms of grief, may lead physicians to prematurely conclude that a morbid pattern of grief my be unfolding when in truth none exists. Parents confronted with the death may report perceptions that may outwardly seem bizarre, (e.g., actually seeing the infant or still feeling the baby move) but which are often experienced by parents of a stillborn (Klaus & Kennell, 1976; Peppers & Knapp, 1980). Parents need assurance especially from their physicians that their reactions are both normal and understandable. This contrasts to a previous study conducted by Bourne (1972). He concluded that doctors were often unable to deal with the stress of stillbirth and that inability might lead to neglect of patients in need of humane attitudes (Bourne, 1972).

Williams, Ware, and Donald (1981) state that at all levels of life events, persons with better social supports tended to have fewer psychiatric symptoms. Nuckolls, Cassel, and Kaplan (1972) investigated how life event changes and psychosocial assets relate to complications in pregnancy and birth. They found that when the two measures were studied conjointly, women with high life

measures were studied conjointly, women with high life change scores and high social support had fewer complications than other women with similar life-change scores but low social support.

Psychological Functioning

Averill (1968) noted that the dissolution of the mother-infant relationship is one of the strongest occasions for grief-like reactions. In a study conducted by Wolff, Nielson, & Schiller (1970), the authors noted initial depression which was associated with grief reactions. The authors also state that the question, "Why did the baby die?" was universally asked early in the interview (p. 74). They further found that 43 of the 48 subjects reported physical complaints or minor psychological problems evidenced by somatic complaints and anxiety.

Peppers and Knapp (1970) interviewed 100 middle-class educated mothers who had experienced a perinatal death. They reported that the women perceived doctors as cold and indifferent and concluded that the women's emotional needs were not met by the physicians. Kirkley-Best et al (1984) surveyed physicians and found that a slight majority of doctors polled responded that a mother of a stillborn infant would experience a sense of sadness. Lovell (1983) found that mothers experiencing perinatal loss were avoided and their plight dismissed as their failure.

In the case of perinatal death, a woman may feel a sense of failure (Peretz, 1970). The result of this sense of inadequacy may produce a lowering of self-esteem, guilt, and other symptoms commonly observed in depressed patients (Alexy, 1982). Johnson (1984-85) stated that guilt was a commonly reported feeling in her study of women experiencing perinatal death. She further suggested that many of these women tried to resolve this guilt by becoming pregnant again. Other researchers have noted a replacement syndrome whereby women try to replace a pregnancy or child by having another pregnancy (Horowitz, 1978; Johnson, 1984-85; Kirkley-Best & Kellner, 1982).

Forrest (1973) noted that women who experienced perinatal loss frequently reported depression, guilt, and a sense of loss. He further stated that some women reported hearing phantom crying or feeling the baby move. These women were reluctant to share these feelings in fear of being labeled crazy. Kirkley-Best et al (1984) stated that:

> Parents confronted with the death may report perceptions that may outwardly seem bizarre, (e.g., actually seeing the infant or still feeling the baby move) but which are often experienced by parents of stillborns. (p.325)

Rubin (1984-85) suggested that the woman as a mother is confronted with a dual task following the death of her child. This included coming to terms with the reality of

ability to respond with flexibility and openness to the deceased child will aid mothers in resolving their grief.

Summary

The review of literature seems to indicate that pregnancy in and of itself can be considered a crisis. When a pregnancy ends in miscarriage, as one in every five pregnancies do (Pizer & Palinski, 1982), the couple is generally unprepared for this outcome. The literature also states that for many couples, this additional stressor can exacerbate existing problems in the marriage or create new ones. The research also notes a lack of awareness of society in general to acknowledge mourning in the instance of a miscarriage. As Lovell (1983) stated, a miscarriage is considered less sad than a stillbirth, and the stillbirth less so than a baby who lives a few hours. A few researchers have speculated that health professionals who deal with obstetrics and pediatrics rarely deal with death in their patients, and therefore thus are unprepared to be of help or comfort to these parents. As the research and studies such as this one continue, it is hoped that recognition of the distress that these women deal with will be acknowledged and dealt with appropriately. The research of Kennell et al. (1970), Klaus and Kennell (1976), Kirkley-Best and Kellner (1982), and other authors have brought attention to this problem through their various writings and studies.

problem through their various writings and studies. Although sparse in the literature, this research seems to be catching the attention of many types of health professionals.

CHAPTER III

METHODS

The methodology for this study on the length of pregnancy prior to perinatal death and its relationship with interpersonal and psychological functioning of women is discussed in this chapter. The chapter sections include a discussion of the subjects, instrumentation, procedures, and data analysis.

Subjects

Subjects were 60 women between the ages of 19 and 41 (X = 30.4), who had experienced a perinatal death within six months of the time they completed the instruments and demographic questionnaire. A six month period was chosen as the limit of time in order to control for the possible confounding effect of time elapsed since the perinatal death. These women were contacted through several avenues, including notices in doctors' offices, referrals from hospital health workers, and through AMEND (Association of Mothers Experiencing Neonatal Death). Of the 60 subjects responding to the study, 55 (91.7%) were Caucasian, 3 (5%) were Black, and 2 (3.3%) were Native Americans. Data on marital status indicated that 90% of the subjects were married, 3.3% were divorced, and 6.7% of the subjects were in a living together arrangement.

the subjects were in a living together arrangement. Regarding educational level, eight subjects had a high school education, 21 subjects had some college, 14 subjects had Bachelor's Degrees and 17 subjects had Graduate Degrees. This data is displayed in Tables 1 and 2. Pregnancy length prior to perinatal death was specified into three levels of pregnancy loss; first, second, and third trimester losses. The data indicated that 29 subjects had not experienced a prior miscarriage, 17 subjecsts had one prior miscarriage, and 14 subjects had two or more prior miscarriages. Sixteen subjects had experienced a previous stillbirth. The decision to have more children was reported by 45 women affirmatively, five women negatively, four women were unable to have children, and six women were uncertain at the time of data collection. Thirty-two women had some explanation as to the cause of pregnancy loss, 27 women had no explanation, and one woman was not sure of the cause of perinatal death. The average length of marriage/long-term relationship for the 60 subjects was six years, seven months. Twenty-nine of the subjects had no children, 17 subjects had one child, and 14 subjects had two or more children. See Appendix A for a copy of the demographics questionnaire.

TABLE 1

DESCRIPTIVE STATISTICS FROM DEMOGRAPHIC QUESTIONNAIRE: TRIMESTER OF PREGNANCY LOSS AND MEAN AGE BY GROUP

N	Trimester of Pregnancy Loss	Mean Age
35	1st	30.1
14	2nd	29.9
11	3rd	30.4

N = 60

TABLE 2

DESCRIPTIVE STATISTICS FROM DEMOGRAPHIC QUESTIONNAIRE: MARITAL STATUS, RACE, AND EDUCATION LEVEL BY GROUP

Group	Marital Status			Race			Education Level			
	M	D	LT	CA	BL	NA	HS	SC	BS	GRAD
I	33	2	0	33	1	1	3	11	11	11
II	11	0	3	13	1	0	2	7	2	3
III	10	0	1	9	1	1	3	3	1	3
Totals N = 60	54	2	4	55	3	2	8	21	14	17

M = Married, D = Divorced, LT = Living Together;
CA = Caucasian, BL = Black, NA = Native American;
HS = High School, SC = Some College, BS = Bachelor's Degree, GRAD = Graduate Degree

Instrumentation

Each subject completed a research packet that consisted of a demographic questionnaire, Symptom Checklist-90-Revised (Derogatis, 1977), and McMaster Family Assessment Device (Epstein, Baldwin, & Bishop, 1983). After completing the demographic section, the subject then responded to the other instruments which were presented in random order to control for possible order effect. Included in the packet was a stamped postcard which could be mailed separately, if a subject wished to obtain the overall results of the study or request resource material.

Symptom Checklist-90-Revised (SCL-90-R)

The Symptom Checklist-90-Revised (Evenson, Holland, Mehta, & Yasif, 1980) is a measure of current, point in time, psychological symptom status. It is not a measure of personality, except indirectly, in that certain personality disorders may manifest a characteristic profile on the primary symptom dimensions. The SCL-90-R consists of nine scales: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The function of the somatization scale is to reflect distress arising from perceptions of bodily

dysfunction. The obsessive-compulsive scale focuses on thoughts, impulses, and actions that are experienced as unremitting and irresistible by the individual but are of an unwanted nature. The interpersonal sensitivity dimension focuses on feelings of personal inadequacy and inferiority. The depression dimension reflects symptoms of dysphoric mood affect, withdrawal of life interest, lack of motivation, and loss of vital energy. The anxiety scale is composed of a set of symptoms and signs that include nervousness, tension trembling, panic attacks and feelings of terror. Hostility is the dimension that reflects thoughts, feelings or actions that are characteristic of the negative affect state of anger. The phobic anxiety scale measures the persistent fear response to a specific person, place, object, or situation and leads to avoidance or escape behavior. The paranoid ideation scale measures the dimension of paranoid behavior fundamentally regarded as a model of disordered thinking. The psychoticism scale includes items indicating a withdrawn, isolated, schizoid life style, as well as schizophrenic symptoms such as hallucinations or thought broadcasting.

The SCL-90-R consists of 90 symptoms, where a subject indicates to what degree he or she has that given symptom during a specified time period. The scale utilizes responses ranging from 0 (not at all) to 4 (extremely). The scale scores are then obtained by adding together all

the nonzero distress scores for any given dimension and dividing this derived sum by the number of items in that dimension. Specifically, subjects were asked to indicate the degree to which they have experienced the symptoms since the perinatal death. The SCL-90-R was designed to be interpreted in terms of three distinct levels of information: the global, the dimensional, and the discrete symptom. Among the global measures, the GSI (Global Severity Index) provides the most sensitive single numeric indicator of the respondent's psychological distress, combining information on numbers of symptoms and intensity of distress. This index was chosen to be the comparison measure of interest due to the other scales needing to be compared and contrasted in profile format.

Reliability and Validity. Internal consistency scores for the SCL-90-R (Derogatis, 1977) are given for each of the nine dimensions, and range from .77 for psychoticism to .90 for depression, with a mean of .81. In a study focused on establishing construct validity, Derogatis and Cleary (1977) found that all nine symptom constructs showed at least moderate levels of theoretical validity by empirical agreement. The strongest levels of validity were shown by the Anxiety and Depression Scales, with the Psychoticism Scale showing promise but not with the strength that the other measures showed.

Derogatis, Rickels and Rock (1976) found that the nine SCL-90 dimensions showed peak correlations ($r > .40$)

with analogous scales from among the Minnesota Multiphasic Personality Inventory (MMPI) clinical scales, the Wiggins (Wiggins, Goldberg, & Applebaum, 1971) content scales of the MMPI and the Tryon (1966) cluster scales of the MMPI, while correlating to a lesser degree ($r < .40$) with nonanalogous scales. The results of the study were interpreted as a demonstration of the high convergent and discriminant validities of the nine SCL-90 dimensions. Dinning and Evans (1977) examined SCL-90-R results from a small, select sample of patients who had been referred for group psychotherapy and found good convergent validity with other psychological tests but low discriminant validity. They argued that the SCL-90-R may be a useful screening device for disposition and referral but cautioned utilization among psychiatric patients.

McMaster Family Assessment Device

The McMaster Family Assessment Device (FAD) was utilized (Epstein, Baldwin, & Bishop, 1983) to measure perceptions of current family functioning. This questionnaire was developed to be used as a screening device for families (Miller, Bishop, Epstein & Keitner, 1985). The questionnaire consists of 60 statements that people could make about their family. Seven scales on the FAD reflect the following dimensions of family functioning: problem solving, communication, roles, affective responsiveness, affective involvement, behavior control,

and general functioning.

The Problem Solving scale refers to the family's ability to resolve problems. The second scale refers to Communication, defined as the exchange of information among family members. Roles, the third scale, refers to whether the family has established a pattern of behavior for handling a set of family functions which include provision of resources, providing nurturance and support, supporting personal development, maintaining and managing the family systems and providing adult sexual gratification. The fourth scale, Affective Responsiveness, focuses on the extent to which individual family members are able to experience appropriate affect over a range of stimuli. Affective Involvement is the fifth scale and is concerned with the extent to which family members are interested in and place value on each other's activities and concerns. The way in which a family expresses and maintains standards for the behavior of its members is the definition for scale six, Behavior Control. The seventh scale, General Functioning, assesses the overall health/pathology of the family.

Subjects respond on a four point Likert-type scale with 1 (strongly agree) to 4 (strongly disagree). For purposes of this study, the General Functioning scale will be used. General Functioning is determined by averaging those items designated by general functioning which includes an overall assessment of the entire instrument.

yielded on the seven scales range from .72 to .92 with an average of .77 (Epstein, Baldwin, & Bishop, 1983). Correlations between social desirability and FAD scales were -.11 to -.15, indicating social desirability does not appear to exert a strong influence on FAD scores. Test-retest reliability was estimated at .71. Concurrent validity between the Family Unit Inventory (FUI) and FAD were reported above .50 in six of the eight cases and the correlation of General Functioning was .48. Miller et al., (1985) and provide some evidence for the concurrent validity of the FAD.

Procedures

Subjects were contacted through letters to physicians, notices placed in physicians offices, newspaper ads, and AMENDS (a self-help group for parents who have lost neonates to death) and asked to participate in a study investigating the possible impact of miscarriage and stillbirth. The letters to the physicians explained the nature of the study and requested physicians to give a copy of a flier to their patients which described the study and included an address to contact the researcher. A copy of the flier is included in Appendix D.

Prior to participation, all subjects were informed of their rights as human subjects. These rights were presented in written form (Appendix D) and included the

presented in written form (Appendix D) and included the voluntary nature of the study, the right to withdraw at any time without negative consequences, and the right to strict confidentiality. Confidentiality was insured since at no time were subjects asked to give any identifying information, such as name or address. Due to the potential sensitivity of the topic for subjects, a place was marked on an enclosed postcard for subjects to check should they desire further resources or alternatives.

After reading the informed consent form and acknowledging their understanding of their rights, subjects completed the research packet. This packet consisted of a demographics questionnaire and the instruments measuring family discord and psychological functioning. Included with the packet was an addressed, stamped envelope in which to return the questionnaires. A pre-paid postcard was also included in the packet so that the subject could request the final results of the study. The envelope and postcard could be mailed separately.

Analysis of the Data

The independent variable in this study was identified as the length of pregnancy prior to a perinatal. The dependent variables were identified as interpersonal functioning as measured by the SCL-90-R and psychological functioning as measured by FAD.

A one-way multivariate analyses of variance (MANOVA)

was performed on the data. MANOVA was selected for two reasons. First, MANOVA is specifically designed for research which utilizes multiple dependent variables. Second, MANOVA was selected over a series of ANOVA's because of the protection it affords against Type I error. However, if it was found that the two dependent variables are uncorrelated, then separate univariate analyses would be run on the two dependent. Appropriate tests for evaluating the assumptions of multicollinearity, singularity, and homogeneity of variance were conducted. The hypothesis error was set at .05.

CHAPTER IV

RESULTS

The purpose of this chapter is to present the results and statistical analyses utilized in examining the two research hypotheses: (H1) Length of pregnancy prior to a perinatal death will affect a woman's subsequent psychological functioning; and (H2) Length of pregnancy prior to a perinatal death will affect a woman's subsequent interpersonal functioning. The purpose of the study was to examine the independent variable, length of pregnancy prior to perinatal death, with the two dependent variables, psychological functioning and interpersonal functioning. The independent variable has three levels: Group I, women who had experienced a first trimester pregnancy loss; Group II, women who had experienced a second trimester pregnancy loss; and Group III, women who had experienced a third trimester pregnancy loss, which also included stillbirths. The two dependent variables, psychological functioning and interpersonal functioning, were scored by means of the SCL-90-R (Global Severity Index, GSI) and the McMasters Family Assessment Device (General Functioning Scale), respectively.

Research Findings

The SYSTAT Statistical Program for MANOVA was used to analyze the data from the 60 subjects. A one-way between subjects multivariate analysis of variance (MANOVA) was performed on the two dependent variables: psychological functioning and interpersonal functioning. No significant relationship was found for the multivariate F between the the two dependent variables [$F(4,112) = .795$, $p > .05$]. Combined dependent variables were not significantly affected by length of pregnancy prior to perinatal death.

TABLE 3

MULTIVARIATE TEST STATISTICS

		df	p
Wilks' Lambda	0.946		
F-Statistic	0.795	4,112	0.531

Theta = 0.054 S = 2, M = -.5, N 27.0 Prob = 0.459

Therefore, subsequent univariate F Tests also were utilized to test for effect of group independently for each dependent variable.

TABLE 4

UNIVARIATE F TESTS FOR EFFECT
CALLED GROUP

Variable	SS	SSe	MS	MSe	F	p
FAD	0.007	1.817	0.003	0.032	0.104	0.902
GSI	256.137	5309.796	128.069	93.154	1.375	0.261

df (2,57)
FAD = Family Assessment Device
GSI = Global Severity Index

Hypothesis 1

In order to determine if length of pregnancy before a perinatal death had an effect on subsequent psychological functioning, a one-way analysis of variance was performed comparing the means of three groups of perinatal loss, according to scores achieved from the SCL-90-R (GSI). A T-score of 63 or greater (on Norm B, the non-patient norm) connotates a positive diagnosis or case (Deragotis, 1977). See Table 5 for a description of the means of the three groups on the GSI. As shown in Table 5, the F was not statistically significant ($F = 1.375$, $df = 2,57$, $p > .05$). Therefore, the null hypothesis was not rejected.

Hypothesis 2

In order to determine if length of pregnancy before a perinatal death had an effect on subsequent interpersonal functioning, a one-way analysis of variance was performed

comparing the means of the three groups of pregnancy loss prior to perinatal death according to scores achieved from the McMaster Family Assessment Device (FAD; General Functioning Scale). A score above two indicates a pattern toward unhealthiness (Miller et al., 1985). The between group mean scores are shown in Table 5. As shown in Table 5, the F was not statistically significant ($F = .104$, $df = 2, 57$, $p > .05$). Therefore, the null hypothesis was not rejected.

TABLE 5

DEPENDENT VARIABLE MEANS

	N	FAD	GSI
Group I			
1st Trimester Loss	35	2.45	60.46
Group II			
2nd Trimester Loss	14	2.46	61.92
Group III			
3rd Trimester Loss	11	2.27	66.27
ALL Groups	60	2.461	62.033

FAD = Family Assessment Device
GSI = Global Severity Index

CHAPTER V

DISCUSSION

This chapter presents a summary of the study, a discussion of the results relative to the research hypotheses, and implications for future research and counseling practice, and conclusions.

Summary

This research was designed to investigate the relationship between pregnancy length prior to perinatal death and psychological functioning and interpersonal functioning. Subjects consisted of 60 women between ages 19 to 41. Participants completed a SCL-90-R questionnaire, the McMaster Family Assessment Device and a demographic inventory. At no time were subjects asked to give their names or identifying information. Subjects were given a stamped postcard which could be mailed separately from the information packet if they desired the results of the study. Women who qualified for this study had experienced a stillbirth or miscarriage within the last six months prior to answering the instrument. Subjects were contacted by means of physicians, social workers, the AMEND support group, and nursing staff from hospitals. Each referral source was

given pre-stamped packets that could be given to participants. Ninety-five percent of all women participating in this study mailed the postcards included in the packet, requesting the results of the study.

Two one-way between subjects analysis of variance were employed to test the hypothesis that length of pregnancy prior to perinatal loss would significantly affect subsequent psychological functioning and interpersonal functioning. The two dependent variables were test scores from the SCL-90-R (GSI) and McMaster Family Assessment Device (General Functioning Scale). Results of the univariate analysis of variance revealed no significant effect of pregnancy length prior to a perinatal death affecting the dependent variables. Therefore, the null hypothesis that length of pregnancy prior to perinatal death will not affect subsequent psychological functioning and interpersonal functioning was not rejected.

Conclusions

The difficulty of reaching individuals who have experienced a stillbirth or miscarriage may have moderately hampered the generalizability of this study. There is no way of knowing for sure what motivation or internal incentives women had for participating in the study. In addition, in the three levels of the independent variable, length of pregnancy prior to

perinatal death, the group sizes were not equal. This study contained 35 first trimester pregnancy losses, 14 second trimester pregnancy losses, and 11 third trimester and/or stillbirth losses. However, the samples of each group are representative of the natural occurrence. Most miscarriages occur within the first trimester. Few occur within the second trimester with 20% occurring in third trimester.

It would appear that the purpose of this study, which was to examine whether length of pregnancy had an effect on a woman's subsequent psychological functioning and interpersonal functioning, is a valid study in that it supports previous research findings. For example, Peppers and Knapp (1980) found that all mothers grieve regardless of the age of the fetus, and that no quantifiable differences existed in the various types of loss (miscarriage, stillbirth, and neonatal death). Moreover, no significant differences were noted between the three levels of pregnancy loss prior to perinatal death in this study. However, each of the three groups individually scored within a range which would ascribe that a crisis is occurring and intervention is needed. Culberg (1972) found that 19 of 56 mothers studied one to two years after the death of their neonates had developed severe psychiatric disorders. Among the reported symptoms were anxiety attacks, phobias, and depressions.

The implications of this study would seem to be only

a small step in the need to further study this phenomenon. Notwithstanding, the difficulty of having access to these kinds of subjects will still pose a problem for this kind of research. Unless medical and mental health professionals collaborate fully, studies of this nature will be difficult to perform and assess.

The study still possesses the potential for future research. For example, one could compare profiles obtained by the SCL-90-R with other measures not used in this study, such as the MMPI or MCMI in future investigations. Since a large number of subjects requested the overall results of this study, it may be noted that there is a need for further information in this area. One also may wish to explore long-range implications of a miscarriage or stillbirth.

Recommendations

The following are recommendations for future research:

1. The present study should be replicated and expanded by using the spouse/partner's scores in a between and within subjects design. This may give insight into how couples are affected by a perinatal death individually and conjointly.
2. A broader span of time should be used but controlled for in future studies. An example of this may be to compare scores with the same subjects at a later time

period or compare measurements at different time periods using different subjects. This may allow the researcher to observe grief dynamics and processes that are particular to perinatal death.

3. A similar study should be conducted using different instruments such as a depression inventory, e.g., Beck's Depression Scale and an attributional style instrument. A depression scale would seem to be an appropriate measure for intensity of grief reactions. An attributional scale could be used to assess internal or external blame, because many individuals need some explanation to understand tragic life events.

This study should contribute to the information needed for health professionals to identify and intervene with these kind of crises. It is concluded that women do experience psychological distress and family dysfunction regardless of pregnancy length prior to a perinatal death. The next step may be to find appropriate interventions to help these women cope with a perinatal loss.

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APPENDIXES

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

1. Age ____________

2. Race:
   __________ Hispanic
   __________ Black
   __________ Native American
   __________ Caucasian
   __________ Asian
   __________ Other

3. Current Marital Status:
   __________ Single
   __________ Married
   __________ Divorced/Separated
   __________ Living as Married

4. If married or living as married, length of marriage
   __________ Years ____________ Months

5. Place an X by the highest level of education obtained by you or your spouse/partner.

	Yourself	Your Spouse
Elementary School Graduate	___________	___________
High School Graduate	___________	___________
Some College	___________	___________
Bachelor's Degree	___________	___________
Graduate Degree	___________	___________

6. Your occupation: ____________________________________
   Spouse's occupation: ________________________________

7. Number of children: _____ Ages: ____________________

8. Number of previous miscarriages: ______
9. Length of previous miscarriages: ____________________
10. Number of previous stillbirths: _______
11. What was the number of weeks of your last pregnancy: __________
12. How long has it been since your miscarriage or stillbirth experience? _________ wks _________ months
13. Previous indicators (if known) of impending miscarriage or stillbirth:

14. Do you plan another pregnancy:
    ______ yes
    ______ no
    ______ uncertain
    ______ unable to

15. What kinds of supportive help have you received since your most recent pregnancy loss: (please check all that apply)
    ________ friends
    ________ minister
    ________ family
    ________ self-help
    ________ medical profession
    ________ mental health professional (if yes, how many sessions)

APPENDIX B

LETTER TO PHYSICIAN

Arlene Crawford
Counseling Psychology
Oklahoma State University
415 N. Popular
Wichita, Kansas 67214

Dear Dr. _______________ ,

I am a doctoral student in Counseling Psychology currently studying the impact of miscarriage and stillbirth on women. Specifically, I am looking at how perinatal death may affect a woman's psychological, family, and social functioning. If you have patients who have experienced a stillbirth or miscarriage within the last six months, I would appreciate your sending them the enclosed flier.

Your patient's name will not be a part of my study and their data will be kept strictly confidentiality. Thank you for your consideration of this matter. If I may answer further inquiries regarding my study, please do not hesitate to contact me (316) 686-6671 or my dissertation director, Dr. Mark Johnson, at (405) 624-6036.

Sincerely,

Arlene Crawford, M. S.
Counseling Psychology Doctoral Candidate

APPENDIX C

INFORMED CONSENT FORM

Informed Consent

This packet of papers is part of an ongoing study to understand women's perceptions of perinatal death through experiences of miscarriages or stillbirth. In participating in this study, all we will ask of you is to complete a series of short questionnaires. Your participation is strictly voluntary and you may withdraw at any time without fear of prejudice. Your decision to take the 30-40 minutes to complete the questionnaires will provide important information that may be of great benefit to health professionals in helping other women who may experience a stillbirth or miscarriage.

All information will be gathered in conformance with APA guidelines for human subjects participation. Your responses will be completely anonymous; no attempt will be made to attach your name to your responses and your responses will not be shared with your doctor or any other person. The results of this study will only be reported as group data, not individual responses. If you should have any questions about this study, please contact Arlene Crawford, (316) 686-6671 or Dr. Mark Johnson, Oklahoma State University, (405) 624-6036.

By participating in this study and completing the questionnaires, I acknowledge that I have read these instructions and understand my rights.

If you wish a copy of the final results and/or further information on resources available for women who have experienced miscarriage or stillbirth, please complete the enclosed self-addressed, stamped postcard and mail it to us separate from your responses.

APPENDIX D

LETTER TO PATIENTS

Dear Patient,

We are conducting a study concerning women who have experienced miscarriage or stillbirth. It is hoped that what we learn from this study may be of future benefit in helping women who have had these experiences. While your doctor is sending this flier to you as a potential participant in this study, your name has not been released to the researcher. Should you be interested in participating in this study, or have questions concerning this study, please feel free to contact me.

Should you agree to help me in this study, you may return the enclosed postcard in order to receive a testing packet or indicate an interest in asking for information. Your name and information will be kept strictly confidential and participation in this study is voluntary. In fact, your name will not be requested on the testing packet in order to keep all information confidential. If you should desire results from the entire study, the researcher will gladly provide them for you when the study is completed. However, that will necessitate your submitting a name and address to which to send the results. This personal information will still be kept confidential.

Requirements for this study include being at least 18 years of age and having had the miscarriage or stillbirth experience within the last six months. Your participation will be very much appreciated. Thank you.

Arlene Crawford, M. S.
Counseling Psychology Doctoral Candidate
415 N. Popular
Wichita, Kansas 67214

VITA

Arlene Crawford Clements

Candidate for the Degree of
Doctor of Philosophy

Thesis: THE EFFECT OF LENGTH OF PREGNANCY ON PSYCHOLOGICAL AND INTERPERSONAL FUNCTIONING FOLLOWING PERINATAL DEATH

Major Field: Applied Behavioral Studies

Specialization: Counseling Psychology

Biographical:

Personal Information: Arlene O'Neal Crawford Clements, born March 14, 1954, to Arnold and Virginia O'Neal in Sallisaw, Oklahoma. Married to Lloyd Clements on September 3, 1989 in Wichita, Kansas. Three daughters, Amiee, Rebecca, and Angela Crawford born from a previous marriage.

Educational Information: Graduated from Sallisaw High School, Sallisaw, Oklahoma, in May 1972; received Bachelor of Science Degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in December, 1975; received Master of Science Degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in July, 1982; completed requirements for Doctor of Philosophy Degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in May, 1990.

Professional Information: Teacher of Homebound students, Bay City, Texas 1977-1978. Teacher, Alternative High School, Bartlesville, Oklahoma 1980-1982. Guidance counselor, Bartlesville Mid-High School, 1982-1985. Practicums for Doctor Psychology Program: Youth and Family Services, Bartlesville, 1986; Oklahoma State University Counseling Center, 1986-1987. Psychology Internship; Wichita Collaborative Psychology Internship Program: Wichita Guidance Center (primary) and Kansas University Medical School (secondary), 1987-1988. Staff psychologist, Wichita Guidance Center, 1988-present.