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THE MATURE GRAVIDA'S ORCHESTRATION OF PREGNANCY FROM

CONCEIVING TO BIRTHING

by

Linda Clair Robrecht

DISSERTATION

Submitted in partial satisfaction of the requirements for

the degree of

DOCTOR OF NURSING SCIENCE

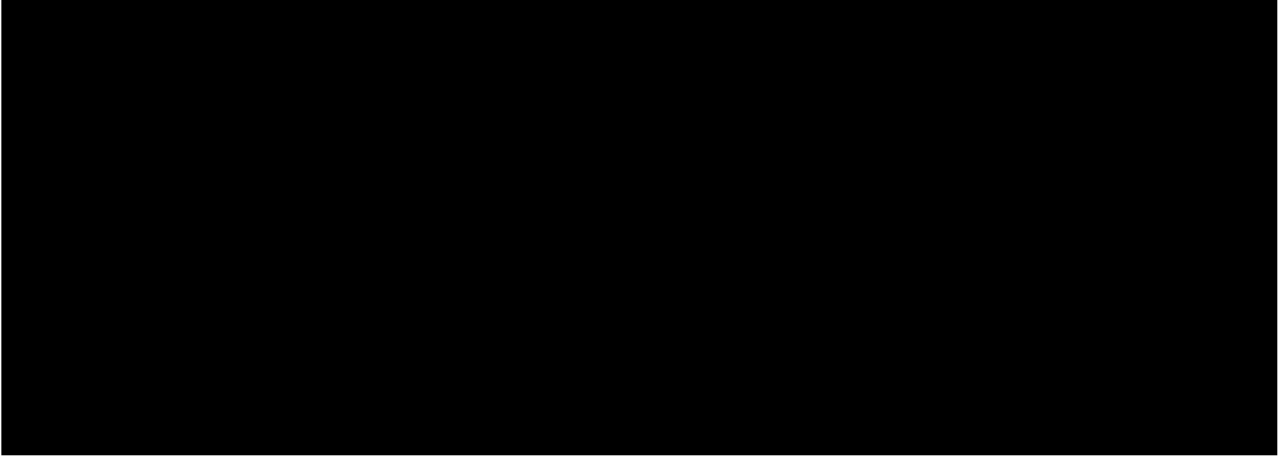
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Abstract

MATURE GRAVIDA'S ORCHESTRATION OF HER PREGNANCY FROM CONCEIVING TO BIRTHING

Linda Clair Robrecht

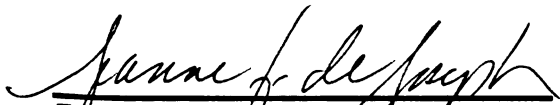
The purpose of this investigation was to generate a substantive theory of how previously childless women over the age of 35 incorporated the events of pregnancy and childbirth into their ongoing lives. Grounded Theory, a naturalistic-inductive method of inquiry and analysis was employed.

A convenience sample of 20 childless pregnant women over the age of 35 were interviewed once during the third trimester of pregnancy and again during the first postpartum month. Interviews were semistructured according to theoretical sampling techniques and were tape recorded. Data were analyzed according to the techniques of dimensional and constant comparative analysis in which conceptualizations emerged from the data to specify and define the context and consequences of phenomena.

When the mature gravida enters the pregnancy experience she brings patterns of behavior derived from her biological, social, and personal history. These patterns of behavior represent an organizing perspective from which the gravida will orchestrate actions that occur in anticipation of, and in reaction to, pregnancy-timed events and life's random occurrences.

Three major organizing perspectives were identified (a) technical, (b) intermediary, (c) process. Pregnancy-timed events refer to the physically and socially constructed meaning of time during pregnancy where certain events act as pivotal experiences for the gravida. These identified time markers are (a) conceiving, (b) guarding, (c) embracing, (d) birthing. The particular signals that herald entrance into one time period and exit from another, the discreteness of the time periods, and the value accorded a specific time period vary according to the gravida's organizing perspective.

When strategic actions taken by the gravida are in harmony with her organizing perspective and are appropriate to the changing demands of pregnancy, these new actions are incorporated into her repertoire and she experiences a feeling of control and success in accomplishing the challenges presented by pregnancy. If situations are presented that are at variance with the gravida's perspective and usual strategic actions are insufficiently informative, the gravida senses a lack of situational control and must modify her perspective or continue to meet with frustration.


Jeanne DeJoseph, CNM, PhD


Linda C. Robrecht

Dedication

To my husband and children:

Joe, Lydia, Andrea, Jennifer, and Paul

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CHAPTER 1

INTRODUCTION

Purpose of Study

The purpose of this research was to generate a theory describing how a woman expecting her first child after the age of 35 incorporates her pregnancy and childbirth experience into her on-going life. The wide spread availability of obstetrical technology in the United States during the 1990's and medical-legal implications suggesting a specific standard of care for women of advanced childbearing age combined to promote routine exposure to technological interventions during the prenatal period.

The meaning or significance of technological exposure to the mature gravida, and the effect of this exposure on her experience of pregnancy was unknown. Assumptions were made by health care professionals that women of advanced childbearing age would welcome what technology had to offer as a safe guard against fetal or maternal damage, yet experience demonstrated that not all women of advanced childbearing age desired technological intervention. A small group of mature gravidae choose to decline prenatal testing and hospital based medical care. These women are aware of the generally available information regarding medical opinion on the degree of age related risk to the fetus and pregnant woman, yet decisions are made based on criteria not widely understood by health care professionals.

The effect of these choices and the influence that these choices have on the way in which women over the age of thirty-five accomplish maternal tasks of pregnancy were unknown. From a medical perspective it may be too easy to dismiss these differences as unusual, dangerous or even irresponsible. As a researcher, it is of value to discover and explain variation in behavior that is reflective of women's own stories and experience.

Historical Context of the Problem

The social-cultural context of this study was understood to represent a relatively new phenomenon in human history. In earlier times large families were desired and inevitable. Fertility was a blessing, and sterility was a curse (Findley, 1933). The ability to delay childbearing was not amongst choices that women made for themselves. Technological advances, accompanying social and demographic changes have combined to produce a context for decision making around the issue of childbearing (Baldwin & Nord, 1984).

Demographic Trends

Delaying of the first birth until after the age of thirty-five has become increasingly more common in the United States over the past fifteen years (Adams, Oakley, & Marks, 1982). This delay in childbearing was not possible until technology provided safe reliable ways of controlling fertility. Along with fertility control the legalization of

therapeutic abortion in the United States (Roe v. Wade, 1973) and the emergence of women as a substantial portion of the professional work force have served to modify the structure of the American family. The mature gravida, having chosen to delay childbearing, is likely to have an established work/career and social support network. She is also more likely to have planned her pregnancy than a younger woman. Also as a function of improved health care, life style, and economic conditions even a woman choosing to delay first birth until after age 40 should live well beyond the age of adulthood for her child (Bloom & Trussell, 1984; Fonteyn & Isada, 1988).

The size of the post-war baby boom cohort dramatized initial confusion over an emerging population trend. It appeared that women were choosing to remain childless. As the cohort aged, it was noted that the trend actually represented a desire to delay childbearing until one's professional, educational, and personal life were in order (Adams, Oakley, & Marks, 1982). Increased educational opportunities for women and career options requiring extensive preparation greatly contributed to this phenomenon. Other authors have speculated that delay of first birth has been less prevalent among black and hispanic women than among white women because of lingering inequalities in educational, employment and economic

opportunities (Bloom & Trussell, 1984; Mansfield & Cohn, 1986).

Social Trends

The older first-time mother may experience conflicting expectations regarding her timing of first childbirth. Previous research suggested a pattern or sequencing of life events that placed the birth of the first child during a woman's twenties (Bloom & Trussell, 1984). By delaying the time of first birth, one may be seen as having defied what is expected at a given age (Welles-Nystrom & deChateau, 1987; Winslow, 1987). Formerly established societal behavioral norms are challenged as expectations regarding the timing of first childbearing are confronted (Guttman, 1983; Mercer, 1986; Welles-Nystrom & deChateau, 1987; Winslow, 1987).

Compared to the younger first-time mother, the older first-time mother is more likely to have well developed social support systems, and economic stability (Hofferth, 1984). Women in the older age groups attend more prenatal classes and are more likely to breast feed their infants. They show greater competency in child rearing skills possibly as a result of higher social and psychological development (Mercer, 1986; Winslow, 1987). However, the first-time older mothers tend to be less fulfilled by the maternal role than the younger mother (Mercer, 1986; Russell, 1974).

Decreased gratification with the maternal role may be related to the estimate that greater than one-third of working mothers will be back to work three months following the births of their babies (Baldwin & Nord, 1984). Since society does not fully support the idea of substitute care for infants, the gravida must grapple with these vacillating cultural issues (Brazelton, 1986). How social, demographic, and cultural issues specific to this age group affect the woman's experience of her pregnancy and her attachment to her infant is unknown; but must be addressed when studying this special population.

Technological and Medical Trends

Medical management of pregnancy in the elderly primigravida has been traditionally regarded as being of higher risk than pregnancy in the younger primigravida, and the management process has stressed cautious and conservative strategies (Fonteyn & Isada, 1988; Kirz, Dorchester, & Freeman, 1985). Prenatal diagnosis and fetal screening for age related genetic aberrations are emphasized (Adams, Oakley, and Marks, 1982; Hansen, 1986; Hook, 1981). Advances in genetic counseling and prenatal chromosomal diagnosis have attended to the concern that women in the older age groups have increasingly higher rates of Down's Syndrome pregnancies. Options for prenatal diagnosis and treatment are available to women seeking care prior to the late mid-trimester. With reassurance from prenatal

diagnosis, and if the woman is in good general health, free of diabetes, hypertension, or other chronic disease, then she may expect a healthy pregnancy that includes a positive outcome (Ales, 1990). Basic screening for abnormalities throughout her pregnancy and possibly closer fetal monitoring near term take into consideration the major risks attributed to increasing maternal age. Even if the woman has a chronic disease or fertility difficulties, her opportunity for a healthy pregnancy and positive outcome has been increased through advancements in perinatal science and medicine (Davidson & Fukushima, 1985).

Labor and delivery complications are frequently attributed to advanced maternal age and are reflected in a high rate of cesarean delivery [32 to 40.7 percent] (Dougherty & Jones, 1988; Fonteyn & Isada, 1988; Halfar, 1985; Hansen, 1986; Kirz, Dorchester, & Freeman, 1985; U. S. Bureau of Census, 1989). Neonatal outcomes have also been considered to be influenced by advanced maternal age even though recent literature suggests that the general health of the mother seems to be the greatest predictor of fetal well being (Stein, 1983).

Personal Transformation as Personal Development

The event of first pregnancy, birth and subsequent transition to parenthood has been widely studied for over thirty years. Many researchers have described this time of personal and family growth as a period of crisis; others

have viewed it as a developmental process with inherent feelings of anxiety and apprehension. All would agree that the early phases of prospective and new parenthood entail accomplishing difficult personal and interpersonal tasks (Cowan, Cowan, Coie, & Coie, 1978; Hees-Stauthamer, 1985; Hobbs & Cole, 1976; LeMasters, 1957; Mercer, 1986; Rubin, 1984; Russell, 1974).

Earlier work describing women's personal adaptation to impending parenthood suggests some consistent themes or tasks encountered by the woman expecting her first child. These suggested tasks of pregnancy include the following: acceptance of the fetus as part of self, acceptance of the fetus as an individual following quickening, movement from mother-child relationship to peer relationship with own mother, seeking of safe passage for fetus, ensuring social acceptance of fetus, binding-in to child, learning to give of self (Hees-Stauthamer, 1985; Leifer, 1980; Lederman, 1984; Mercer, 1986; Rubin, 1984). It is important recognize that these behaviors are integrated in different ways within different individuals. Social, biological and psychological dynamic tensions exist that exert important influence upon adaptation within the reproductive course (Gloger-Tippelt, 1983; Hill, 1978; Welles-Nystrom & deChateau, 1987).

The related events of choosing to bear a child, being pregnant and giving birth, evoke a sense of transformation that can be understood as personal development (Strauss,

1962). The mature gravida is in a more complex situation based upon an arbitrary age boundary. This predicament which confounds the transformation process is illustrated by comments from a thirty-six year old woman participating in a pilot study of mature gravida's pregnancy experiences.

"...there's a lot to decide. I think, especially with just becoming thirty five--it's the magic age. And when you really think about it, not that much pressure is put on you when you are 34..." (Robrecht, 1989).

Transformations imply irreversible change. The self perception before the event changes to a different self concept after the event. Such transformations affect previously held concepts, replacing earlier ones with more detailed and complex concepts. These shifts in concepts imply shifts in personal perception and action such that development may be viewed as becoming transformed. Social scientists believe that transformations may mark the course of adult experience, and that critical incidents constitute turning points in the onward movement of life experience. One such critical incident may be pregnancy and first childbirth.

"...I am suggesting that in coming to new terms a person becomes something other than he [sic] once was...the transformation of perception is irreversible; once having changed, there is no going back. One can look back, but he [sic] can only evaluate only from his [sic] new status...critical incidents occur that force a person to recognize that 'I am not the same as I was, as I used to be.'..." (Strauss, 1962, pp. 66-67).

STATEMENT OF THE PROBLEM

It was hypothesized that the prevalence of obstetrical technology in the United States during the 1990's would influence the way women over the age of 35 perceive their experience of pregnancy and first childbirth. It was also hypothesized on the basis of previous investigations that women over the age of 35 had already established a pattern of responding to new and challenging situations and that the pregnancy experience would be confronted in a manner which reflected the gravida's usual approach to novel circumstances.

A theory of how women over the age of 35 experienced their pregnancies was sought to provide a basis for further research and to add to the understanding of requirements unique to this group. A method of qualitative research, grounded theory, was selected for the fundamental assumption that a theory generated by this process would be gleaned directly from the data and would closely resemble the universe under scrutiny (Strauss & Corbin, 1990).

Although a grounded theory approach stresses that categories of importance will come forward from the data, clinical experience and review of relevant literature provided theoretical sensitivity and stimulated the following research questions:

1. What impact does the interaction amongst current medical and/or technological attitudes, social

expectations, and personal desires have on women over the age of 35 as they experience pregnancy and first childbirth?

- a. Does repeated exposure to technological intervention influence the mature gravida's perception of pregnancy and childbirth?
- b. What strategies does the mature gravida employ to maintain harmony amongst the competing demands presented by her on-going life?
- c. How do mature gravaidae manage situations that arise during the course of pregnancy where her own needs and desires are in disagreement with those of her health care provider, her partner, or others of significance?

DEFINITION OF KEY TERMS

Definitions are presented to establish clarity of meaning for certain key terms used repeatedly throughout the discussion of this research project.

1. Mature Gravida For the purposes of this study the mature gravida is defined as a previously childless woman over the age of 35 intending to give birth for the first time. The technical term of primigravida was not selected as it literally means first pregnancy. Many women expecting their first child have had other pregnancies not carried to term.

2. On-going Life This term represents the complex life course as experienced by a particular mature gravida that includes biological, social, and personal factors which are a source of expectations, aspirations, and personal history.

3. Intervening Variables Intervening variables represent unpredictable events occurring at random within the context of the mature gravida's on-going life. These events may or may not be related directly to the pregnancy.

4. Organizing Perspective Organizing perspectives represent a set of conditions drawn from the gravida's social, biological, and personal history that include strategies previously employed by the gravida as novel situations and life event challenges were confronted. These perspectives inform the gravida in her search for knowledge, her decision making processes, and the types of interpersonal social support required by the particular gravida to meet the unique circumstance of first pregnancy. Three identified major organizing perspectives are: (a) Technical Perspective - The gravida's perception of pregnancy events as being of high risk to self and/or fetus and requiring intensive surveillance in a technological setting. The focus of the pregnancy experience is on planning and achieving certain technological landmarks that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into on-going life.

Concerns are expressed regarding a lack of confidence in the body's ability to function without expert guidance; (b)

Intermediary Perspective - The gravida's perception of pregnancy events as being of some increased risk to self and fetus and requiring technological screening and availability but not necessarily requiring immediate or continuing access to technological intervention. The focus of the pregnancy experience is on planning in anticipation of pregnancy events and on the achievement of certain landmarks both technological and biological that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into on-going life; and (c)

Process Perspective - The gravida's perception of pregnancy events as a normal sequence of development that are part of a larger continuum and a demonstration of interconnectedness with others. Risks to self and fetus are seen as a natural extension of the pregnancy process. Technological intervention is seen as unnecessary. There is an effort to avoid situations where technological interventions might occur. The focus of the pregnancy experience is on spiritual growth and maturity with reassurance coming primarily from spiritual/body sources.

5. Pregnancy-timed events Four time periods of significance to mature gravidae were identified from the data. They were: (a) Conceiving - A time period that includes both social and biological events, and spans the

period of time from the intent to pursue pregnancy through confirmation of pregnancy; (b) Guarding - A socially or culturally defined period of time spanning from confirmation of pregnancy to the time period of embracing distinguished by uncertainty regarding the future of the pregnancy and by competing concerns from both maternal and fetal sources; (c) Embracing - A socially or culturally defined time interval spanning from the end of the period of guarding to birthing. It is distinguished by claiming behaviors such as naming the baby, actively planning for birth, and incorporation of the child to be into one's on-going life; and (d) Birthing - A biologically mandated period of time signaling the end of the period of pregnancy. Each pregnancy-timed event builds upon the experience of the previous event and provides a general context for the subsequent event(s).

6. Orchestration A major strategy employed by mature gravidae as they endeavor to achieve harmony amongst competing concerns from social, personal, and biological sources. Orchestration literally means to integrate, harmonize, blend or synthesize. Orchestration represents a directed action taken by the gravida as she reacts to and anticipates intervening variables, her on-going life, and pregnancy-timed events. Her organizing perspective will guide and influence her decision making and information gathering actions and will contribute to how a particular woman orchestrates these competing demands.

SUMMARY

The purpose of this study was to generate a substantive theory that would reflect and explain the pregnancy and childbirth experience of the mature gravida. Because of the current interest in the older gravida, information regarding the medical risks of pregnancy in women over age thirty-five has been generated. Scholarly attention has been paid to why women choose to delay childbearing, to couples and individuals process of transition to parenthood, and to emotional responses when confronted with the fact of declining fertility (Baldwin & Nord, 1984).

Demographic trends support the impression that delayed childbearing will continue as a prominent feature of women's culture in the United States. Confronted with the facts of a growing population of women requiring health care services that vary from standard prenatal care, and an insufficient theoretical basis for understanding issues of critical importance to this group, a substantive theory of the mature gravida's orchestration of pregnancy from conceiving to birthing is proposed by this research.

CHAPTER 2

REVIEW OF LITERATURE

This chapter will include review of medical, nursing, psychological, and sociological studies relevant to the pregnancy, labor and birth experience of the first-time mother over the age of thirty-five. The application of this body of literature to the study of women's experience during pregnancy and childbirth served to heighten the researcher's awareness of various phenomena that may influence the course of the pregnancy and childbirth. These writings provide a general background and contextual basis for explaining adaptation to pregnancy and first-time motherhood under circumstances commonly believed to be more complex than for younger gravida.

Demographic and Economic Issues

Earlier this decade studies were done projecting the effect of the "baby boom" cohort upon health care services (Adams, Oakley, & Marks, 1982). It was predicted that the percentage of births to women age 35 years and older would increase by 37 percent. The projected increase in the proportion of births among women 35 years and older would also account for an increased demand for prenatal chromosomal testing to an additional 1.1 million women during the 1980s. These projections were obtained from series II data made available from the U. S. Bureau of the Census. Series II data represent middle estimates between

Series I, more conservative, and Series III, more liberal, estimates about fertility. The estimates take into consideration social, economic, political, and other factors thought to influence fertility, but it is difficult to anticipate how these factors will actually influence the birth trends. The actual trend probably fluctuates around the projected trend in the area of the Series II projections (Adams, Oakley, & Marks, 1982). The large size of the cohort accounts for more than 80 percent of the projected increase in the number of births to women 35 years and older, with the residual of the projected increase attributed to a slight increase in age-specific fertility rates. The projected number of births and age specific fertility rates are calculated for the female childbearing population as a whole and for each five years age interval. The total fertility rate is defined as the number of live births per 1000 women aged 15 to 49 years per year (Adams, Oakley, & Marks, 1982).

In 1984, the population reference bureau devoted an entire issue of the Population Bulletin to discussion of the phenomena of delayed childbearing. This work is based upon population research and presents certain facts describing the emerging trend toward later childbearing. The phenomenon described was labeled delayed childbearing and those women choosing to delay childbearing until after age 25 were labeled as delayers (Baldwin & Nord, 1984). Delayed

childbearing is defined as delayed entry in to parenthood. That is, the timing of the first birth is postponed until a later age. In order to address social as well as medical aspects of the phenomenon, delayers were defined as women who delayed the initiation of childbearing until age 25 or older (Baldwin & Nord, 1984). While the defining age limit of 25 years and older is appropriate to the work presently described, it does not represent the current definition which is based on the medical age-risk of 35 years and older (Fonteyn & Isada, 1988). Between 1970 and 1981, the proportion of women childless at ages 25-34 rose 56 percent (from 18 to 28 percent), while rate of first birth to women age 30-34 was 7.3 in 1970, and increased to 14.6 in 1982. Furthermore, predictions indicate that as many as 28 percent of American women born in the 1950s will never bear children (as compared to approximately 9 percent of women born in the 1930s). Involuntary childlessness (infertility) does increase with a woman's age, but newer methods for treating infertility are helping to overcome biological problems that hampered delayed childbearing in the past (Baldwin & Nord, 1984).

Increased opportunities in education for women, changing sexual and childbearing norms, and changing attitudes toward marriage and the family are factors thought to contribute to delayed childbearing (Hofferth, 1984; Bloom & Trussell, 1984). The pattern of activities that set

norms for behavior became more varied for women following World War II and was augmented by a resurgence of feminist ideologies of the early 1970s (Baldwin & Nord, 1984).

With the availability of effective contraceptives and changing attitudes toward marriage and the family, it is now possible to defer childbearing without deferring marriage or other unions. An analysis of census data indicates that both the time of marriage, remarriage or other unions, and the period of time until the birth of the first child after marriage have been progressively delayed (Baldwin & Nord, 1984; U. S. Bureau of Census, 1989).

The delay of both marriage and first birth is partially explained by new opportunities in the paid work force for women. This increasing commitment to the world of work is probably related to women's greater investment in education (Bloom & Trussell, 1984). Many women work out of economic necessity and are forestalled in childbearing until they and their spouses feel more financially secure (Hewlett, 1986). Data support the image of the well educated professional woman, but also reveal the diversity of women who defer childbearing (Hewlett, 1986; Baldwin & Nord, 1984).

Patterns of childbearing differ on the basis of race. Black women enter parenthood more quickly during teenage years than white women do. When education level is considered along with race, black women remain less likely to delay childbearing than similar white women (U. S. Bureau

of Census, 1989).

Women expect to spend less time raising children than their parents did. Most women say they expect to have only two children. The effort of arranging acceptable care for small children while mothers work, may prompt further delay of childbearing. It was revealed from analysis of population statistics that one-third of employed mothers are back at work three months after the birth of their babies. Fifty-two percent of all mothers of preschool children under age six were working in 1984, up from 12 percent in 1970 (Hewlett, 1986; U. S. Bureau of Census, 1989). Considering statistical data regarding the numbers of working mothers, the need for child care services is obvious, yet the United States is one of the few industrialized countries with no national day-care program. With no national policy or programs for child care, the arrangements parents must make are individualized. Older working mothers of small children are much less likely to rely on relatives for child care and are more likely to depend on day-care centers or family day-care by a non-relative in a private home (Baldwin & Nord, 1984; Hewlett, 1986).

Family life of delayed childbearers is tentatively described by social demographers. Drawing on previous research that indicates that the older a person is at marriage the less likely he or she is to separate or divorce, suggests that separation and divorce rates should

be lower among delayed child bearers (Baldwin & Nord, 1984). No research has been conducted to examine marital satisfaction in this group. The additional time without the responsibilities of parenthood may allow these couples more time to understand and gain confidence in themselves as individuals. On the other hand, many of these couples are juggling demanding careers and child raising. They have high expectations for themselves and their children. The complexity of their lives and the goals that they have set could lead to dissatisfaction or frustration at not being able to handle all responsibilities equally well (Baldwin & Nord, 1984; Hewlett, 1986).

Further examination of the trend toward delayed childbearing has been done. Stimulated in part by the question of whether or not the trend toward delayed childbearing is solely a function of numbers (the baby boom cohort) or an indicator of more subtle social change, investigators have examined census data (Bloom & Trussell, 1984). Estimates of cohort parameters from computerized data of three cohorts of women, the National Survey of Family Growth (1976), the National Longitudinal Survey of Young Women (1978), and the Current Population Survey (1980) were derived by fitting the Coale-McNeil marriage model to survey data. This model was developed to analyze data from vital statistics registers and provides estimates of cohort response even when applied to incomplete data (as in

comparing younger to older cohorts). The model allows one to project the remainder of a cohort's first birth fertility, its mean age at first birth, and the proportion of those who remain permanently childless.

In addition to estimating the age of first birth, other variables thought to impact upon age at first birth were examined. Those variables were race, religion, rural/urban childhood residence, and education. Discussion of results compare the mean age of first birth, standard deviation and estimate of childlessness for each cohort. The covariates were assumed to be nonlinear. Log transformation of nonlinear models renders it appropriate for estimation with standard regression techniques. Logs also have a useful functions for interpretation of relative changes. Log likelihood references are often employed when examining population data. Findings from this study indicate that the log likelihood of delaying first birth is increasing in younger cohorts (3435.5 for women 25-29 compared to 3323.8 for women 35-39). This means that younger women are more likely to delay first birth than the older women. Further findings suggest that: (a) delayed childbearing is less prevalent among black women than among non-black women; (b) education is the most powerful determinant of delayed childbearing and is a variable demonstrating increased influence across cohorts [adding from one to six years to delay time depending upon data set]; (c) education explains

increased heterogeneity among women in their age at first birth [a larger standard deviation]; (d) race has a statistically insignificant effect on childlessness [Black race has a small but statistically nonsignificant negative effect on delay that can be partially effected by the influence of education.]; and (e) religion has insignificant effect on age at first birth as does rural/urban childhood residence (Bloom & Trussell, 1984). The results of this study suggest that cohort fertility patterns are becoming more heterogeneous. That is, within a given cohort the incidence of first birth delayers is increasing portraying a greater diversity, or a wider range of experience, within each group. Recent cohorts are showing greater differences in the incidence and timing of first births than older cohorts (NSFG and NLS data, $p > .01$). Educational attainment provides the greatest explanatory power in delaying first birth, but other variables not studied may also have an impact (Bloom & Trussell, 1984). Those other variables may include political attitudes, perceived child care difficulties, and continuing economic or social problems.

In other population based studies done to gather data on the economic consequences of delayed childbearing the direct and indirect economic effects of having a baby were determined. The amount of work experience, skill appreciation, and capital investment taking place prior to the arrival of a child were assumed to have an impact upon

the economic outlook for women (Hofferth, 1984). For example, the economic effects of child bearing may be seen as causing a reduction of the mother's labor force participation attributed to long years spent raising children with the net effect of decreasing hourly wages through loss of work experience and skill depreciation. Also, as a reflection of a decreasing economic situation is the finding that families with children appear to spend more and save less during the children's early years (Hofferth, 1984). Data analyzed in Hofferth's study came from the Panel Study of Income and examined the net effect of delayed childbearing and family size on living standards of women age 60 and older. Variables considered in relation to their economic consequences were the level of material resources indicated by each family, the number of children in a family, the number and timing of first birth, the length of marriage, and fecundity (childless by choice or chance). Findings indicate that women who delayed first birth until age 30 or older have higher family incomes and higher standards of living than women who have their first birth before age 30 ($p > .05$). Late childbearing coupled with small family size (two children) appeared to be associated with the highest income and living standards among older women (Hofferth, 1984).

In summary, the mature gravida is, most commonly, a well educated, career oriented white woman. She may or may

not be in a marital relationship, and the length of that primary relationship prior to conception is widely variable. Her pregnancy is more likely to be planned than those of her younger counterparts. She will probably find child care outside of her own home, and that care will be delivered by someone other than a relative. Her economic outlook is more favorable than that of women choosing to bear children earlier. She is concerned with the interface of demands from her parenthood role and her work/career. The process and impact of adjustment to the birth of a first child is discussed below.

Psychological and Social Issues

A large body of literature exists that describes the impact of the birth of the first child on the mother, spouse, and couple (Belenky, Clinchy, Goldberger, & Tarule, 1986; Chodorow, 1978; Cowan & Cowan, 1988; Cowan, Cowan, Coie, & Coie, 1978; Entwistle & Doering, 1981; Grossman, Eichler & Winickoff, 1980; Hees-Stauthamer, 1985; Hoffman, 1978; Martin, 1987; Mercer, 1986; Oakley, 1980a, 1980b; Rossi, 1980; Rubin, 1984). Less is written that specifically applies to the older gravida as she experiences delayed pregnancy and entry into parenthood (Kitzinger, 1985; Mercer, 1986; Rothman, 1986; Schrottenboer-Cox & Weiss, 1985). In reviewing this broad spectrum of literature certain themes and metaphors recur as does a natural separation of events that span the time frame from

initiation of pregnancy, the pregnancy itself, birth, and early parenthood.

Images of the Modern Mother

Since the turn of the century, but primarily since World War I and the political emancipation of women, the social position of motherhood has been in constant change and has been subjected to considerable criticism (Caplan & Hall-McCorquodale, 1985; Chodorow, 1978, LeMasters, 1974; Rossi, 1980). The social explosion that accompanied greater urbanization, an expanded job market, and educational opportunities for women have resulted in a redefinition of the American family (Ahmed & Kolker, 1981; Cowan & Cowan, 1988; LeMasters, 1974; Martin, 1987; Oakley, 1980). This new American mother has been described as over committed, trying to accomplish more things than previous generations of women with no more hours in the day (Hewlett, 1986; LeMasters, 1974). She may combine the role of wife/partner, with home management, community obligations, career demands, and motherhood (Hewlett, 1986). While job or work has traditionally defined adult status for men, maternity has been the equivalent definition for women. New definitions of adult status are sought (Hewlett, 1986; LeMasters, 1974; Rossi, 1980).

Now, for the first time in human adult experience, women are no longer obligated to have unwanted pregnancies. Contraception, the means of controlling one's fertility, has

brought the opportunity for freedom from ill-timed or undesired pregnancy (Huston, 1989; Rossi, 1980). Some might argue that work or job opportunities may now define women's adult status (Hofferth, 1984; Huston, 1989). For many, first birth remains to be seen as one of the most memorable and influential of all family events. This may be due to the experience of social transformation that is dramatized by first birth as opposed to other life experiences (Cowan, Cowan, Coie, & Coie, 1978; Hewlett, 1986; Oakley, 1980a). For the delayers, first birth may represent the reality of not only having it all, but doing it all; as child care, parental leave, economic disparity, and lack of equality in the distribution of household labor become pressing issues (Cowan & Cowan, 1988, Cowan, Cowan, Coie, & Coie, 1978; Hewlett, 1986; La Rosa & LaRossa, 1981).

Maternal Tasks

Becoming a mother for the first time stimulates a personal transformation that may be initiated when the fact of pregnancy is confirmed (Rubin, 1984; Entwisle & Doering, 1981). This transformation or redefinition of self encompasses psychological, biological and social adaptive processes and include the following tasks: (a) acceptance of the fetus as part of self (Grossman, Eichler & Winickoff, 1980; Hees-Stauthamer, 1985; Lederman, 1984; Mercer, 1986); (b) acceptance of fetus as individual following quickening or as a result of early prenatal diagnostic testing

(Gloger-Tippelt, 1983; Hees-Stauthamer, 1985; Leifer, 1977; Mercer, 1986; Rothman, 1987; Rubin, 1984; Tilden, 1980); (c) movement from mother/child relationship to peer relationship with own mother (Lederman, 1984; Mercer, 1986; Tilden, 1980); (d) seeking of "safe passage" for the fetus, including establishing prenatal care, informing of self regarding pregnancy, following prescribed routines, role rehearsal and exploration of role through fantasy (Mercer, 1986; Rubin, 1984); (e) ensuring social acceptance of the fetus into the fabric of the woman's established relationships (Hees-Stauthamer, 1985; Rubin, 1984; Tilden, 1980); (f) "binding-in" or becoming a mother to this child (Gloger-Tippelt, 1983; Lederman, 1984; Mercer, 1986; Rubin, 1984); (g) learning to give of self, or the development of a capacity for self-denial on behalf of the child and the experience of grief regarding loss of former self (Hees-Stauthamer, 1985; Mercer, 1986; Rubin, 1984).

Maternal tasks specific to the experience of the mature gravida have not been described. Some questions may be raised regarding the impact of interventions that may delay or modify task process, e.g. second trimester genetic testing (Rothman, 1987). Other questions might be raised regarding the optimal stage of personal development for motherhood (Mercer, 1981; Tilden, 1980). Problems exist with suggesting the accomplishment of maternal tasks during pregnancy. There is a tendency to begin to think of

pregnancy as a linear process where each successive phase depends upon the resolution of the preceding phases. This manner of conceptualizing acquisition of the maternal role may limit theoretical perspective on the family, on women's experience and may be inappropriately used as behavioral norms whose achievement leads to an ill defined goal.

Attitudes about Pregnancy and Childbirth

A qualitative study of twelve primigravidas over age 35 was conducted to explore their pregnancy experiences and to develop a theory to explain their experience (Winslow, 1987). Grounded theory method as described by Glaser and Strauss was used for this investigation of the experience of pregnancy after age thirty-five. Twelve in-depth interviews were conducted with women meeting the criteria for the study. Early conceptual categories focused on learning experiences. Continued theoretical sampling gave more detail to the learning experiences category and a theory representing pregnancy as a project emerged from continued analysis of the data. The theory of pregnancy as project was divided into four phases spanning preconception to childbirth and encompassed various tasks and goals to be completed within each specific time frame. Planning and control issues were prominent categories expressed by these older first time mothers as they managed their pregnancies and prepared to combine career with motherhood. The text is illustrated with quotes from interviews to highlight aspects

of the women's experiences and to give the reader a sense of the theory being grounded in the data (Winslow, 1987). The study follows the assumptions of grounded theory methodology and provides clear evidence of the origin of the conceptual categories. Criticism centers primarily on the lack of development of additional or competing categories that may be central to the respondent's experience. These criticisms could be addressed by indicating greater detail in linkages between categories or by indicating experience with comparison experiences. For example, the concept of control issues may have unique meaning for this age group of women. Pursuing such concepts through the grounded theory technique of open coding might lead to development of the concept and eventually free it from its mundane definition.

Careful planning of pregnancy and information gathering described in previous studies is included in the approach and attitude toward prenatal diagnostic testing offered to all mature gravidae (Rothman, 1987). The delicate balance of technology with maternal desire and the pregnancy 'as project' framework expressed by the mature gravida is highlighted by Rothman's qualitative study. Dr. Rothman interviewed four groups of women: three groups of women who were eligible for prenatal diagnostic testing, and a fourth group consisting of genetic counselors. Sixty women who had amniocentesis and sixty women who were at risk for having an infant with a chromosomal abnormality but refused

amniocentesis were interviewed. The third group was comprised of fourteen women who had terminated their pregnancies as a result of an unfavorable prenatal diagnosis. Her interviews were done mostly by questionnaire with some follow-up telephone communication. Her respondents were from all over the United States and were divergent in socioeconomic background.

Dr. Rothman's study underscores the variety in women's experience and provides experience-based data. Her use of a questionnaire may have had a limiting effect on the type of response that she received by not permitting respondents to comment in their own way on their own experience. With these limitations in mind, Dr. Rothman's work contributes greatly to expanding understanding of the mature gravida's dilemma. A respondent in her study commented, "...I am pregnant. If everything is OK, I'll have a baby..." (Rothman, 1987, p. 101).

The summary impression is one described by Rothman as the tentative pregnancy, where a woman's commitment to her pregnancy under the conditions imposed by prenatal diagnostic testing can only be tentative. She cannot ignore her pregnancy, but she cannot embrace it. She is a pregnant woman carrying a fetus. Her ambivalence surrounding attachment to her developing child is magnified. If reassurance the pregnancy is not a genetic accident or a mistake is received, then her fetus will be transformed into

a baby. To make a commitment to the pregnancy the woman needs information confirming that this pregnancy is leading to childbirth and not to abortion. The tentative pregnancy may be made socially real by informing close friends and relatives, but the baby is not a social reality until the results of testing are in (Rothman, 1987).

The early, routine exposure to technology may enhance an increasingly popular metaphor of pregnancy and childbirth that equates the process to a mechanical event. Dr. Martin in her (1987) anthropological study of 165 women's perceptions of their bodies and bodily functions discusses this point. Her findings suggest that birth may be viewed as a form of production where quality control can be exerted from the ground up. The uterus is a machine that works to produce a product. If the work of the uterus is ineffective, then interventions can occur to correct the faulty machinery and retrieve the product (Martin, 1987). Her research also indicates that new metaphors for birth may have some tentative power. This new view of birth is completely free of medical intervention, and is self determined and self sufficient. It has no stages. It is a continuous process of creative energy that begins with conception and flows through years of nurturing (Martin, 1987). To what degree these metaphors actually affect women's attitudes regarding themselves and their experience of pregnancy and birth is unknown, but their presence

reflects the diversity in women's experience. Other researchers have looked at the birth event to examine the link between perceptions of birth experience and maternal behaviors.

Mercer (1985) contrasted women's perceptions of the childbirth experience and subsequent maternal behaviors across three age groups: 15-19 years, 20-29 years, and 30-42 years. Perception of the childbirth experience was positively correlated with maternal behaviors among teenage mothers at all test periods. The 20-29 old age group also showed positive relationship at all except the eight month test period. While the older mothers were avid information seekers, they expressed a greater readiness for pregnancy than the younger women in the study. Mercer found a nonsignificant relationship between childbirth experience and mothering behaviors during the first year for 88 older mothers. Additionally, it was found that the teenage mother's relationship with her mate and her perception of the birth experience were not significantly correlated. While in both of the older age groups, the mother's relationship with her mate, regardless of marital status, was significantly related to perception of the birth experience [20 to 29 years: $r = .33$, $p = .0003$; 30 to 42 years $r = .30$, $p < .02$] (Mercer, 1985).

The mature gravida's ability to organize and pursue information and care specific to her needs may be a unique

feature of her pregnancy. Her readiness for pregnancy and overall maturity may further influence her adjustment to pregnancy and parenthood. Stress, anxiety, hostility, and conflict will be discussed in relation to the events of pregnancy and may have additional meaning for the mature primigravida.

Stress, Anxiety, Hostility and Conflict

The mature primigravida may artificially elevate her risk factors because of added stress from fear of age related risk than from the effect of age per se (Mansfield & Cohn, 1986). A critical review of 104 medical studies of older first time mothers was conducted by Mansfield and Cohn to clarify the basis of pessimistic medical information given to older first time mothers. The authors found that a number of related variables, rather than maternal age alone, could account for many of the problematic outcomes. Yet, medical advice often cites age as a prime risk factor. As a result older women may experience additional stress from believing that they, and their babies, are at high risk for complications during pregnancy, labor, or delivery. The authors point out that regardless of the nature of the stressor, the body responds with the same biological changes as it seeks to restore internal balance. All such biological changes can influence maternal functioning and fetal response. Relationships between maternal age, stress, and pregnancy complications, including the physiological

mechanisms by which emotional stress may effect pregnancy, are inconclusive. But, evidence is suggestive of the additive effect of stress on a variety of obstetrical outcomes (Mansfield & Cohen, 1986).

A number of investigators have examined factors influencing perceptions of stress, anxiety, and conflict during pregnancy. These factors include: age, education, parity, gravidity, socioeconomic status, health and health history, marital status and relationship, personal strength, and history in coping with critical experiences (Aaronson, 1989; Crawford, 1984; Lederman, 1984a, 1984b; Mercer, Ferketich, DeJoseph, May, & Sollid, 1988; Mercer, May, Ferketich, & DeJoseph, 1986).

Increased feelings of stress for the older gravida may also be associated with the timing of genetic testing (Lippman, Perry, Mandel, & Cartier, 1985; Robinson, Garner, Olmsted, Shime, Hutton, & Crawford, 1988). Chorionic villus sampling (CVS), the earlier procedure, might be less stressful and more acceptable to most women requiring genetic screening if accurate information on the amount of procedure related risk was available. A survey of 257 women indicated that, of the variables listed, risk information was most important to those selecting amniocentesis and timing of the procedure was most important to those selecting chorionic villus sampling (Lippman, Perry, Mandel, & Cartier, 1985).

In another investigation of stress associated with prenatal diagnostic procedures, it was found that women having chorionic villus sampling tend to lower their anxiety scores faster than women who have amniocentesis (13 weeks compared to 22 weeks of gestation on average). To assess anxiety associated with the procedure, the Spielberger State-Trait Anxiety Inventory was administered to 33 women having amniocentesis and to 21 women having chorionic villus sampling. The groups were compared over four test times including before and after the sampling procedures. The Cranley Maternal-Fetal Attachment Scale, a scale designed to measure the mother's bonding to the fetus, was given at 22 weeks gestation to determine delay in bonding in the amniocentesis group. In both groups the major reason for testing was advanced maternal age. Women having CVS at 11 weeks gestation were less anxious ($p < 0.0001$) than women having amniocentesis at 18 weeks gestation. They also maintained lower anxiety scores for a more sustained period of time during their pregnancies (Robinson, Garner, Olmsted, Shime, Hutton, & Crawford, 1988). Questions remain about the source of the anxiety measured in this investigation. Was the anxiety in regard to fear of injury to self, or fetus, or both? The use of the Cranley Maternal-Fetal Attachment scale stimulates additional questions since the author of that tool has expressed concerns regarding the precision of its measurement. Also, the long term

significance of findings of maternal-fetal attachment measures during pregnancy are unknown.

For the mature primigravida anxiety and hostility expression during early pregnancy appears to be different from negative attitudes toward pregnancy (Barnett, Hanna, & Parker, 1983; Fava, Kellner, Michalacci, Trombini, Pathak, Orlandi, & Bovicelli, 1982; Lippman, Perry, Mandel, & Cartier, 1985; Robinson, Garner, Olmsted, Shime, Hutton, & Crawford, 1988; Roughmann & Doherty, 1983; Spencer & Cox, 1987; Welles-Nystrom & deChateau, 1987).

Fava, et. al. (1982) studied 50 women who underwent amniocentesis and 50 healthy pregnant women who were not having amniocentesis. There were no significant differences between groups for age, marital status, social class, or general health. Psychological distress was assessed with the Symptom Questionnaire(SQ). This questionnaire has subscales for anxiety, depression, somatic symptoms and hostility based on factor analysis (reliability measures not given). The SQ was administered three times to the groups of participants and controls. Findings from the first test time, before amniocentesis, indicated significant differences between the two groups only on the SQ subscale of hostility ($p < 0.05$) and somatic well being ($p < 0.001$). That is, patients offered amniocentesis had higher hostility scores and reported less somatic well being than controls. After amniocentesis and receipt of the test results, there

were no significant differences between group scores (Fava, et al, 1982).

Rather than focusing on stress associated with prenatal diagnostic testing, other researchers have investigated the reassurance aspects of prenatal diagnostic testing. A survey was conducted on a random sample of 2,209 women age 25 to 45 to inquire about their reproductive intentions (1,029 women age 35 - 45 and 1,180 women age 25 -34). The women were asked if prenatal reassurance of fetal genetic well being would influence their reproductive plans. Of those respondents able to bear children, 25 percent of the 35 to 39 year olds and 12.8 percent of the 40 to 45 year olds indicated an increased willingness to bear children if such reassurance was available. Results indicated that 62 percent of those surveyed might choose abortion if diagnosis of a defective fetus was made (data not shown). According to this investigation, the concern for a healthy baby seems to override other concerns, such as, procedure related stress (Roughmann & Doherty, 1983). It is difficult to know how reassurance and willingness to bear children actually translates into a reduction of perceived stress. Women surveyed for this investigation were responding to a questionnaire about their future plans, not to a situation that they were currently experiencing. Often it is easier to imagine situations as being less complex prior to being involved in the actual experience.

Stressful events or conflicts present early in pregnancy may influence the course of labor and delivery. Lederman (1984a) conducted an investigation to answer two main research questions: (1) are conflicts in pregnancy predictive of maternal anxiety and plasma catecholamine levels in labor; and (2) are these variables related to prolonged labor and fetal/newborn depression? Thirty-two married primigravidae, 20 to 32 years of age participated in her study. Interviews, diary entries, anxiety inventories (KEL and STAI), and serum catecholamine levels were analyzed. Interrelationship of variables during pregnancy identified a core cluster of eight interrelated variables. Those variables in the cluster were fears of helplessness, loss of control, pain, and loss of self esteem. Findings from labor data support the hypothesis that anxiety is related to progress in labor, both to uterine contractility ($r = -.64$) and to duration of labor ($r = .60$). Also, anxiety manifested early in labor is predictive of increased likelihood of forceps assisted delivery. When interrelationship between pregnancy and labor variables were scrutinized, it was found that conflicts and fears identified in pregnancy are associated with longer labors due to decreased uterine contractility. Psychological factors in pregnancy were found to be predictive of progress in labor and provides support that conflict, fear, and anxiety in pregnancy are related to biochemical measures and

progress in labor (Lederman, 1984a; 1984b). Women in Dr. Lederman's study were generally younger than those referred to as the mature gravida, yet Dr. Lederman was able to suggest that stressful events during pregnancy may influence labor and delivery outcome. The mature gravida, by virtue of her age, has increased opportunity to experience stressful events and associated anxiety during pregnancy. It may be that these sources of stress and conflict have some bearing upon the labor and delivery outcomes and the higher cesarean birth rate for this group.

All the fears and conflicts of pregnancy come together in the experience of labor and delivery and may pave the way for the emerging parental experience (Mercer, 1985). Social support may moderate the challenge and stress of pregnancy and transition to first parenthood by providing reassurance, useful information, expert opinion, and experienced role models. The impact of social support and other factors are discussed in relation to transition to parenthood in the next section.

Transition to Parenthood and Social Support

The significance of the first birth and transition to motherhood has been widely studied over the past decade (Hees-Stauthamer, 1985; Hoffman, 1978; Lederman, 1984; McBride, 1984; Mercer, 1981, 1985, 1986; Oakley, 1979a, b;). While most have studied the transition process and social support networks in younger age groups, certain recurring

themes of concern are relevant to the experience of the mature gravida.

Women's self concept and relationship with spouse changes during the first year of new parenthood as redefinition of family roles occurs and older first-time mothers tend to express greater concern with balancing career and family roles than do younger first-time mothers (Mercer, 1986). Mercer also noted that the mature gravida tends to find answers to her questions from books and from sympathetic others more frequently than younger mothers. Her support network tends to include her mate and formalized groups. She has generally fewer intimate friends to turn to for personal advice on early parenthood issues and mothering skills than the younger mother (Mercer, 1986).

Social support networks and their importance in providing positive assistance to individuals and couples during the transition to parenthood have been studied (Cranley, 1984; Crawford, 1985; Majewski, 1986; Mercer, Ferketich, DeJoseph, May, & Sollid, 1988). Much of this work is based upon Norbeck's (1981) proposed social support model. Social support may be conceived of as information that the individual possesses that lead her to believe that she is valued and cared for and belongs to a network of reciprocal intimate communication (Cranley, 1984). The nature of social support may differ according to age, developmental stage and particular circumstance of the

individual. It is also assumed that support resources come from within and from outside of the family and that this support is additive in effect (Cranley, 1984). A woman may perceive herself to be receiving social support from her health care provider if she believes that the professionals are concerned about her as an individual. Of particular importance, when studying the mature gravida, is the finding of a tendency toward lowered perceptions of social support from health care providers as the educational level of women increased ($p < 0.05$). This implies that while health care providers are seen as important sources of information and social support, other factors may influence this relationship. In the same investigation, it was noted that women who were over age 30 and were expecting their first child commented that they purposefully delayed childbearing, did not have many pregnant friends or extended family as resources, and that career obligations took priority over social demands. Thus, they relied upon their health care provider for valued information and social support (Cranley, 1984). Further investigation of the sources of social support, indicated that the marital relationship was positively associated with prenatal attachment to the fetus (women $r=.32$, men $r=.30$). It is implied that the more harmonious the marital relationship, the more positively the partners feel about the unborn child (Cranley, 1984).

The couple relationship provides both sources of comfort and conflict in the early transition to parenthood. Russell (1974) suggested that a pattern of communication resulting in family planning and marital adjustment, a high commitment to the parenthood role, and good maternal health with a calm, non-problematic infant were most relevant to a gratifying transition to parenthood. She also emphasized that her data suggested that babies may be more fulfilling to persons rather than partners. Additionally, it was found that the educational level of the mother was inversely related to expressed gratification with motherhood scores. That is, the more educated the woman the fewer the number of gratification items checked [$p < .001$] (Russell, 1984).

Other investigators have reported that couples view their marriages as happier and more satisfying after the birth of their infants than before, but the majority of satisfaction indicators selected were likely to be personal gratification items rather than gratification items specific to the couple relationship (Russell, 1974; Hobbs & Cole, 1976; LaRossa, 1983).

Complications of pregnancy that designate the pregnancy as high risk are often mediated by the significance of the support network. The increased risk situation and the buffering effect of social support tends to emphasize the relationship between the spouses. As the risk situation increases, the husband (partner) is expected to play a

greater role the gravida's support system (Lederman, 1984b; Cranley, 1984).

Additionally, Mercer and Ferketich (1988) studied 153 high-risk women, 75 high-risk mates, 218 low-risk women, and 147 low-risk mates during late pregnancy. The effect of social support networks, self-esteem, and stress on anxiety and depression were examined by regression analysis. It was indicated in the findings that these variables predicted very little of the anxiety for either high-risk women (10.4%) or their mates (16%), while the variables predicted more of the variance in anxiety and depression scores for low-risk women (29.63%) and their mates (15.5%). More information is needed to understand what contributes to anxiety and depression in high risk women and their mates and what aspects of social support networks are most meaningful to pregnant women and their mates (Mercer & Ferketich, 1988).

How couples cope with the transition to parenthood and what actually happens as couples become parents has been studied (Cowan, Cowan, Coie & Coie, 1978; LaRossa & LaRossa, 1981; Cowan & Cowan, 1988).

The division of household labor, the who does what of day-to-day living, takes on additional importance with the birth of the first child (Cowan & Cowan, 1988; Cowan, Cowan, Coie, & Coie, 1978, LaRossa & LaRossa, 1981). Satisfaction with the division of household labor seems to reflect the

extent to which a husband and wife believe that their system of baby-care and household management is valid, desirable and acceptable (Cowan & Cowan, 1988). Problems arise when conflicting goals and behaviors modify the understood plan and procedure (LaRossa & LaRossa, 1981; LaRossa, 1983).

As part of a continuing research project by Cowan and Cowan (1988), couples have been studied as they make their transition from couple to parents. Measures of individual, parental, and marital adaptation have been utilized to observe change over time. Division of household labor, psychological role, involvement, and satisfaction assessment have also been considered during the transition phase. In more current research subjects were divided into three groups. Group one (G1) represents a treatment group where small group anticipatory intervention is provided. These interventions are based on previous work indicating that if the couple relationship is fortified, then parenting skills, ease of adjustment and the child's preschool intellectual performance and social competence may be increased. Group two (G2) was comprised of couples assessed by the same measures as G1 but not offered the intervention. Group three (G3) was comprised of couples interviewed in the same manner as G1 and G2 but neither assessed during pregnancy nor offered anticipatory intervention. It was indicated in analysis of the findings that individuals and couples who adapt well to their first child describe less conflict and

more pleasure in themselves as individuals and couples prior to the birth of the baby. Initial role rearrangements tend to be toward traditional role arrangements (as opposed to egalitarian arrangements). Satisfaction with role arrangements/rearrangements seem to be more central to women's marital satisfaction than to men's satisfaction. Shifts in role arrangements continue over time for both spouses, and satisfaction with role arrangements differ according to gender, task, and degree of role involvement (Cowan & Cowan, 1988).

In summary, the older first-time mother has many factors to consider as she makes the transition from individual to couple to parent. Due to career demands, she tends to have fewer intimate friendships and tends to gather her information from formal sources; attending classes, books, and professionals. Her career demands, level of education, sophistication, and performance expectations drive her to seek information on all aspects of parenthood and to organize her approach to impending changes by securing redistribution of household labor. Her degree of satisfaction with her marriage and her role as mother may hinge on the division of labor and on agreement regarding child care to a greater degree than her partner. The ease or difficulty encountered during transition to parenthood is affected by psycho-social and cultural variables. Biological variables also exert influence. The mother's and

the infant's health is at the basis of the adjustment process. Complication of pregnancy, birth, postpartum, and neonatal outcomes specific to the pregnant woman over age 35 are discussed below.

Biomedical Issues

Fertility and Fecundity

Fertility is defined as the ability to produce a viable baby. In spite of recent increases in fertility rates for women aged 30 to 39, the increase is quite small compared to the consistently documented decrease in fertility that occurs in the fourth decade of life. Surgical sterilization and the use of contraception both contribute to the reduction in fertility rates as well as age related subfertility. The consistency of reduction in age-specific fertility rates over different populations is notable in view of variation in diet, standard of living, and time period (Fonteyn, Isada, 1988; Hansen, 1986; Spellacy, Miller, & Winegar, 1986).

Fecundity, or the ability to conceive, also decreases with age. It is difficult to isolate the impact of age alone since so many factors may contribute to this process including: cigarette smoking, coital frequency, partner's fertility, medical and gynecological background (Fonteyn, Isada, 1988). Studies done by Schwartz and Mayaux in 1982 provide some interesting data to support the assumption of decreasing fecundity. Women (N = 2193) received donor

insemination at 11 centers in France. The fecundity rate was assessed by age, and confounding variables, such as coital frequency and male fertility, were controlled. Statistically significant differences were demonstrated in the two older age groups, with women under 25 having a 73% success rate after 12 cycles of insemination; women between 26-30 having a 74% success rate; women between 31-35 having a 61.5% success rate, and those over 35 years having a 53.6% success rate.

Existing evidence suggests that increasing age is related to conception delay. A greater number of cycles are required per conception. These data have been fairly consistent over time (Mansfield, 1986).

Spontaneous Abortion

Along with the trend toward age related decreased fecundity is the likelihood of an increased rate of spontaneous abortion. With increasing age there is a rise in chromosomal abnormalities at each conception that in turn leads to a rise in the spontaneous abortion rate. Some authors feel that in addition to the spontaneous abortions from genetically abnormal fetuses there is also a rise in the spontaneous abortion of genetically normal fetuses (Fonteyn & Isada, 1988).

Epidemiologic studies of spontaneous abortion have methodology problems. Of importance is the difficulty of a precise diagnosis. Another confounding factor is the

possibility that women whose pregnancies end in spontaneous abortion are more likely to have additional pregnancies than those women whose pregnancies end in live births. This may result in a bias that women with spontaneous pregnancy loss are older (Hansen, 1986). Factors such as uterine pathology and endocrine problems have not been controlled in these studies.

Questions remain about the direct effect of aging on the rate of spontaneous abortion. Prospective studies of the impact of pelvic infection, contraceptive sequelae, and social factors influencing childbearing will be difficult to conduct. Present data suggest both a decreased fertility and fecundity rate and an increased spontaneous abortion rate. Women may feel pressured into childbearing before age 35. This age may represent an arbitrary social boundary, not a biological boundary. Improvement in perinatal medicine may have a major impact for this particular age group. Pregnancy and its outcome represents a complex interaction of maternal, social, obstetric, and psychological factors. Recent studies reflect some advances in perinatal medicine and statistical techniques and provide important sources of information to use as guides for medical management of the mature gravida. In some cases the contribution that age makes to obstetrical complications all but disappears when confounding variables are controlled (such as genetic abnormality or multiparity).

But, the impact of a particular complication is often greater when occurring in conjunction with advanced maternal age (Kirz, Dorchester, & Freeman, 1985; Spellacy, Miller, & Winegar, 1986).

Chromosomal Abnormalities

The association between increased maternal age and the incidence of chromosomal abnormalities has long been recognized and described. Previously the at risk population was defined as "...women (40 years of age or more) or a great anxiety regarding anomalies in a somewhat younger mother (35 to 40 years of age)..." (Babson, Pernoll, & Benda, 1980, p. 28). More recently the age-related definition has been set at 35 years of age, and there is some indication that the limit may be further lowered to include women 30 years and older (Crandall, Lebherz, & Tabsh, 1986; Simpson & Elias, 1989). Above the age of 30 the rate of trisomy 21 begins to change exponentially from 1/952 to 1/385 by age 35. Trisomy 21 is not the only genetic abnormality to increase in incidence with advancing maternal age. Trisomy 13, trisomy 18, 47 XXX, and 47 XXY also increase with maternal age (Hook, 1981).

Mid-trimester amniocentesis for the detection of these and other genetic disorders first became available about 15 years ago and has steadily gained acceptance from physicians and consumers. Advanced maternal age has been the major indication for its use and popularity (Crandall, Lebherz,

and Tabsh, 1986; Hook, 1981). The advances in medical technology and the expansion of abortion services following the 1973 Roe v. Wade decision contribute to the current understanding that it is a violation of the normal standard of care (medical malpractice) to fail to offer genetic screening to pregnant women over the age of thirty-five (Bell, Hilden, Pearn, Brownlea, & Martin, 1986; Evans, Drugan, Koppitch, Zandor, Sacks, & Sokol, 1989; Rubin, Malin, & Maidman, 1983).

Prenatal diagnosis of these abnormalities allow the mother the opportunity to elect therapeutic abortion or to continue the pregnancy with additional information to enhance preparation time. Women 35 years of age and older have had a decrease in the percentage of Down's syndrome infants born since 1975 (Hansen, 1986; Hook, 1981). In the period 1980 to 1990, it is estimated that greater than 1.1 million women 35 years and older will request prenatal diagnosis (Adams, Oakley, & Marks, 1982). In addition to prenatal diagnostic testing, the pregnant woman over age 35 has been studied in relationship to the occurrence of pregnancy related complications.

Pregnancy Complications

A three year study of pregnant women over the age of 35 was conducted by Kirz, et. al. (1985) to study the risks involved with pregnancy and advanced maternal age. The study included 1023 women who were 35 years of age and

older. They were divided into nulliparous and parous groups. Control groups of 5343 women ages 20 to 25 were used for comparison. The control groups were divided into groups by parity. Each group was further subdivided to evaluate the healthy gravida. The healthy groups were defined as those who did not have hypertension, diabetes, obesity, multiple gestation, cardiovascular disease or incompetent cervix. Results from this study indicated that for all nulliparous women over the age of 35, there was an increased incidence of diabetes. No increase in the occurrence of diabetes was noted for healthy nulliparae over the age of 35. For all nulliparae over 35 years of age, there was no increase in other pregnancy complications compared with the control groups.

Hansen (1986) reviewed the literature on pregnancy complications for women over 35 years of age. He found an increase in the frequency of hypertension and preeclampsia with advancing age. Similarly, he found that the literature suggested an increased frequency of diabetes for older gravidae, and that diabetes may be associated with a higher perinatal mortality rate for the older gravida than for the younger pregnant woman. Issues of dysmaturity, small or large for gestational age infants, are difficult to assess. The studies reviewed have several flaws. Some fail to provide specific statistics used in analyses; others have a small number of subjects or have poorly defined parameters.

Considering these problems, the literature seems to support the belief that older women do have increased incidences of babies less than 2500 gm and greater than 4000 gm. These findings may reflect the higher incidence of preeclampsia and diabetes in the older age groups. The majority of studies reviewed by Hansen did not control for the gravida's general health prior to pregnancy. Therefore, it is difficult to determine the effect of preexisting disease in these women.

A more recent review paper by Fonteyn and Isada (1988) does address the issue of preexisting disease and relative maternal health. Statistical methods were employed to differentiate the effect of age from the effect of chronic disease. When hypertension was reviewed as a risk factor, it was found that the attributable risk for perinatal death associated with hypertension was 22/1000 for younger women and 93/1000 for the older group. Hypertensive women over the age of 35 were more likely to have a fetal demise than younger hypertensive woman. Maternal mortality associated with hypertension was also found to increase with advancing age. The risk of maternal death increases two-to-three fold in the older gravida. The impact of hypertension in women of advanced maternal age is substantial. Hypertension compounded by advanced maternal age was found to be significantly associated with increased fetal and maternal mortality.

Conflicting evidence was cited in studies of relationships between gestational diabetes and perinatal mortality. Advanced maternal age may compound the effect of gestational diabetes to produce increased perinatal mortality. More recent controlled investigations suggest that increase in perinatal mortality associated with diabetes may be associated with primary cesarean delivery for macrosomia. The incidence of macrosomia has an estimated increase from approximately 10 percent in the younger age groups to 16 percent in the older group.

In summary, pregnancy related complications appear to be compounded by advanced maternal age. Hypertension (including preeclampsia) and diabetes and its sequelae are both more common and more devastating for the older gravida and her fetus. Discussion of the sources of complication for the older gravida are most meaningful when more recent literature is surveyed, as trends in perinatal medicine are cited and newer statistical methods are employed in analyzing data.

Labor and Birth Complications

Labor complications and delivery outcomes are frequently discussed in relation to advanced maternal age. The literature will be reviewed according to identified problem areas as they relate to the mature gravida.

Preterm Labor

The literature on the incidence of preterm labor for

the primigravida over the age of 35 is conflicting. Tuck and colleagues (1988) found an increased incidence of preterm labor for the older first time mother (6.1%) when compared to controls 20 to 25 years of age (1.5%). Lehmann and Chism's (1987) data support this trend toward an increase in the number of preterm deliveries to older mothers of higher parity, but not for the lower parity or primigravid women over age 35. Other researchers have failed to demonstrate a marked increase in the rate of preterm births for older women (Spellacy, Miller, & Winegar, 1986). Dougherty and Jones (1987) found a statistically nonsignificant increased incidence of prematurity at both ends of the age spectrum.

Abnormal Bleeding

Abnormal bleeding, includes cases of placenta previa and abruptio placentae, and seems to increase in incidence with advancing age and multiparity. The increased incidence leads one to speculation that age effects may be confounded by parity effects. Hansen (1986) in his review article cites rates for placenta previa of 2.6 percent for the older primipara and of 2.3 percent for the younger groups. Abruptio placenta rates ranged from 2.1 to 2.6 percent for older primiparae, and 0.6 to 2.3 percent for the younger primiparae.

Labor Dysfunction

A retrospective chart review study was done to explore

the relationship between nulliparae over age 30 and frequency of labor dysfunction (Halfar, 1985). Halfar found that a statistically significant higher proportion of nulliparous women between 30 and 40 years of age experience some form of labor dysfunction when compared to nulliparae between 20 and 29 years of age. Cesarean births as a result of dysfunctional labor were more prevalent in the 30 to 40 year age groups. Factors such as cephalopelvic disproportion, malpresentation, and acute fetal distress were not present in this sample.

Cohen and colleagues (1979) found a two-fold increase in the number of protraction disorders in nulliparae over age 35. They speculated that this increase may be a reflection of the increased use of anesthetic or analgesia during labor in this age group. Myometrial efficiency in the older gravida was also questioned by Cohen and colleagues. It was suggested that with ageing there is a gradual replacement of uterine muscle with collagen. There was no comment as to why there is no similar effect in multiparous women of the same age. In 1964, Friedman and Sachtleben looked at the relationship of maternal age to the course of labor. Cervimetric data were obtained on 3,329 consecutive nulliparae. These data indicated that the course of labor in the three age groups studied (under 18, 19 to 34, and over 35) was essentially the same. There was, however, a statistically non-significant increase in the

length of the deceleration phase for nulliparae over 35, and a trend toward a longer second stage.

Preexisting Maternal Illness and Fetal Malpresentation

Kirz, Dorchester and Freeman (1985) studied advanced maternal age and risks associated with increasing age. The subjects included 1023 women who were 35 years of age and older. These women and controls were subdivided into a healthy group (no preexisting chronic disease) and a complication group (presence of preexisting illness). When they compared the older healthy nulliparous pregnant women in their study to the controls (20 to 25 years of age), no significant difference were found in the occurrence of labor complications. Ten categories of labor complications were assessed in this investigation. They included bleeding, maternal fever, fetal bradycardia, fetal tachycardia, prolonged decelerations, severe variable decelerations, precipitous labor, and second stage of labor greater than two hours.

Instrument Assisted Birth

A consistent trend in the literature indicates an increased instrument-assisted or cesarean birth rate for the older age groups. Some of this increase may be attributed to an increased incidence of breech presentation, increased use of sedation or anesthesia during labor, failure to progress, and fetal distress (Dougherty & Jones, 1988; Hansen, 1986; Kirz, Dorchester, & Freeman, 1985). While

much of the increased rates is not explainable, there is an obvious marked increase in cesarean birth rates with increasing maternal age. Statistically significant differences between younger (20-25) and older (>35) primiparous women and the incidence of instrument assisted delivery were cited by Kirz and colleagues (1985) and Dougherty and Jones (1988). These differences included low forceps and vacuum extraction, and was compared against the percent of women with epidural anesthesia. The cesarean birth rates quoted for the healthy (no preexisting chronic disease) older gravidae are in the alarming 39.2 to 40.7 percent range (Fonteyn & Isada, 1988; Friedman & Sachtleben, 1964; Kirz, Dorchester, & Freeman, 1985; Lehmann & Chism, 1987; Spellacy, Miller, & Winegar, 1986; Tuck, Yudkin, & Turnbull, 1988). There is some evidence that part of the increased cesarean rate may be explained by planned primary cesarean birth to offer women "...safer and less painful delivery..." or by "MD anxiety secondary to a premium pregnancy" (Radivojevic, Gring, & Rudelsdorfer, 1985, p. 233).

In summary, the primigravida 35 years of age and older does not seem to have a disproportionate increase in risk for preterm labor or bleeding secondary to placenta previa or abruptio placentae. Preterm labor rises in incidence at both extremes of the age spectrum and may be associated with other factors such as socioeconomic group, social support,

and access to medical care. Bleeding associated with increasing maternal age is best explained by multiparity. Labors patterns of older women may have a tendency toward a prolonged deceleration phase and longer second stage. Other labor complications do not seem to be statistically significant for the older age group when control of preexisting disease is considered. Women in the older age groups do tend to use more sedation and anesthesia during labor. A greater number of deliveries for the older gravidae are instrument assisted. Most alarming is the increased cesarean birth rate for women over the age of 35 at first birth.

Neonatal Outcomes

Concerns surrounding neonatal outcomes and advancing maternal age include the following: (a) increased stillbirth rates; (b) increased neonatal deaths; (c) intensive care nursery admissions; (d) increased congenital anomalies; (e) 1 minute Apgar < 4; (f) 5 minute Apgar < 7; (g) birth weight < 2500 gm; and (h) birth weight > 4000 gm.

The pivotal consideration when discussing neonatal outcome is the general health of the mother. Presence of hypertension or diabetes, in particular, seems to have the greatest negative influence on outcome. Many of the major concerns regarding the neonatal time period can be explained when addressing these particular disease processes. Stein (1983) in reviewing healthy primiparae over age 35 (n=188)

found no neonatal deaths in her sample, a smaller than expected rate of prematurity and small-for-dates infants as compared to rates previously quoted in the literature. She concluded that "... a broad criteria of good health and not age..." be used when assessing risk of medical complication in relation to increasing maternal age. Kirz, and colleagues (1985) found similar results when they controlled for the health and age of the gravida. She found that healthy older nulliparae had no statistical differences in neonatal outcome when compared to younger controls.

Increased perinatal mortality rates for older pregnant patients may be connected to the increased number of obstetrical complications which accompany aging, rather aging itself. That is, the higher incidence of hypertension, diabetes, and complications necessitating cesarean birth contribute to increased perinatal loss. Increases in macrosomia, small-for-dates infants, stillbirth, and low Apgar scores all exhibit strong relationships to the presence of either diabetes or hypertension and their complications. Age probably acts as a confounding variable with the other risk factors (Hansen, 1986; Lehmann & Chism, 1987; Naeye, 1983; Spellacy, Miller, & Winegar, 1986). Naeye (1983) found that 92% of perinatal deaths occurred antepartum. Of the perinatal deaths, 14% were attributable to anomalies, 50% to placental under perfusion, and 36% to other problems such as premature

rupture of membranes, placenta previa, and chorioamnionitis. Naeye continued to note placental complications with age even after excluding hypertensive women. He noted the percentage of maternal sclerotic arteries increased with age from 11% for the 17 year old to 61% for the 39 year old.

The literature on neonatal morbidity is not consistent because of differences in populations, variables, and definitions. The trend seems to indicate an increase in the neonatal mortality rate that corresponds with increasing maternal age. Because of this trend, some health care systems have offered a comprehensive medical management plan for the older gravida that includes preconceptional counseling. This type of counseling needs to include reassurance that there is no specific biological time clock or boundary set at age 35, an awareness of decreasing fertility that occurs with age, and a discussion of chronic health problems. Additional risk factors regarding age should be considered early in pregnancy. Genetic counseling and chromosomal studies should be offered. Parameters such as blood pressure, fetal growth, fetal movement, weight gain, and proteinuria should be evaluated at each visit. Screening for gestational diabetes should be performed prior to 28 weeks gestation. Antenatal monitoring is suggested in view of the approximately fourfold increase in fetal mortality in the older age group. Fetal movement records or

even bi-weekly nonstress testing starting at 34 weeks gestation has been suggested (Fonteyn & Isada, 1988).

Maternal Mortality

Maternal mortality rates can be seen to climb rapidly with increasing maternal age. Parity, preexisting disease, race, socioeconomic status, and access to medical care influence these rates. According to national vital statistics, the mortality rate (deaths per 100,000 live births) for women 35 years of age and older from complications of pregnancy, childbirth and the puerperium in the United States has decreased markedly (81.9 to 21.4) from 1970 to 1986 for all women. For white women over age 35 the rate has decreased from 59.6 to 16.1, while for black women over age 35 the decrease has been from 204.7 to 58.6 (National Center for Health Statistics, 1988; Ventura, 1982).

The maternal death rate for women over the age of 35, not associated with abortive outcomes, is approximately 51.9 per 100,000. Differentiation on the basis of parity is not indicated in this rate. Major causes of death are hemorrhage, embolism, hypertension, obstetrical infection, cardiovascular disorder, and anesthesia complications (Buehler, Kaunitz, Hogue, Hughes, Smith, & Rochat, 1986).

Strides have been made in the advancement of perinatal medicine that are reflected in declining mortality rates for women. Unfortunately, it is obvious that race,

socioeconomic status, and access to care have tremendous impact for nonwhite women over the age of 35. Specific statistics regarding maternal mortality for the nullipara over 35 are not available.

Summary

Because of the current timely interest in the older gravida, information regarding the medical risks of pregnancy has been generated. Some attention has been paid to why women choose to delay childbearing and what their feelings are when confronted with declining fertility. Demographic trends support the idea that older childbearing is a phenomenon that will continue as a prominent feature of women's culture in the United States. Advances in genetic counseling and chromosomal diagnosis have addressed the concern about a higher incidence of Down's syndrome infants in women in the older age groups. Options for prenatal diagnosis and treatment are available to women seeking care prior to the late mid-trimester. If the woman is in good general health, free of diabetes, hypertension, and other chronic disease, then she may expect a healthy pregnancy that includes a positive outcome. Basic screening for abnormalities throughout her pregnancy, and possibly closer fetal monitoring near term, take into consideration the major risks associated with increasing maternal age. If the woman has a chronic disease or fertility difficulties, her opportunity for a healthy pregnancy and positive outcome has

been increased through advancements in perinatal science and medicine.

The older gravida may be in a more positive social relationship with a better economic situation than her younger counterpart. She may also possess high expectations of her own performance and of her situation in general. Theoretical explanation of the experience of the mature gravida could lead to more sensitive teaching and anticipatory guidance. Further research may be stimulated in response to questions raised. And finally, understanding what the mature gravida expects and feels about her pregnancy experience, her intrapartum course, and her pregnancy outcome will help health care providers and teachers understand the variety of needs unique to this age group.

CHAPTER 3

METHODOLOGY

Grounded Theory Methodology

Grounded theory is a naturalistic-inductive method of research. It differs from research in the positivist-empiricist tradition in several important ways, for example: the formulation of problems; the nature of the goals of the research; and in the application of results (Catanzaro & Olshansky, 1988). Rather than aiming toward theory verification, researchers who employ grounded theory methodology strive to generate theory that will reflect and explain the data collected.

Epistemological differences between experimentally based research and qualitative research are evident at inception. Grounded theory as a method rejects efforts to portray human experience as a unidimensional object or variable. Well formulated questions emerge as the researcher gets inside the setting and begins to understand the phenomenon as the participants do (Duffy, 1985).

Historical Perspective and Theory Development

Grounded theory methodology has its roots in the interactionist school of thought. A fundamental principle is that any empirically oriented scheme of society must recognize that human society consists of people in action. To be empirically valid, the scheme must be consistent with the nature of the social action of human beings (Blumer,

1969; Schatzman & Strauss, 1973). The empirical world is understood to be the natural, everyday world of human life in its infinite variety and circumstance (Swanson & Chenitz, 1982). It is the essence of this world that is of central concern to the qualitative researcher. Emphasis is placed on grasping the actors' viewpoints for understanding an interaction, a process, or social change. That is, it is of importance to grasp the meaning of a given situation from the participant's perspective (Strauss, 1987).

The interactionist tradition grew out of the experience of Chicago School of Sociology at the University of Chicago during the period between 1920 and 1950. It was during this time that John Dewey and Herbert Mead inspired a pragmatic, naturalistic approach to the study of human behavior (Schatzman & Strauss, 1973). From the naturalistic vantage point, the validity of concepts are judged by their practical results when studying nature, or naturally occurring events, by direct observation. Naturalism, as it applies to grounded theory, also implies a humanistic perspective. The belief expressed by those who propose this method is that the human scene exhibits special properties in addition to those that might be attributed to nonhuman contexts, a mechanistic context, or a context that stresses only structure-function. The naturalistic approach, founded on pragmatism and blended with evolutionary developments in field observation techniques, moved the earlier theoretical

thinking into the qualitative process now known as grounded theory (Schatzman & Strauss, 1973; Glaser & Strauss, 1967).

"...scientific method is not a prescriptive set of acts handled in the foreground of activity; rather it is a philosophical mandate to render empirically the relation between himself [sic] as observer and the observed event. Scientific method is part of the context within which inquires are made..." (Schatzman & Strauss, 1973, p. 8)

Major Features of the Research Process

Data Collection

After the initial problem area is outlined and permission to engage in human research has been granted from the Committee on Human Research and from the participant, data collection begins. Data collection and analysis are interrelated processes in the grounded theory approach. Analysis is necessary at the initiation of the research process since future data collection will be guided by these early impressions. Sources of data vary depending upon the type of study being conducted. Diaries, taped interviews, literature, journalism, and observation can be sources of data. Within these data sources as categories and their properties emerge, the researcher strives to direct sampling to capture as much variety as possible (Catanzaro & Olshansky, 1988). The generation of theory should aim at achieving as much diversity in emerging categories as possible. As data collection continues, driven by analysis and emerging categories, the researcher begins to synthesize

categories and pose hypothetical possibilities amongst data (Glaser & Strauss, 1967).

The simultaneous actions of data collection and analysis expands the research process to capture potentially salient features as soon as possible. It is the discovery of these salient features that is crucial to grounded theory research (Strauss & Corbin, 1990). The concept of discovery is based on the assumption that, while the researcher may have theoretical sensitivity to the phenomenon under investigation, the researcher does not have a theoretically adequate knowledge of the phenomenon (Strauss & Corbin, 1990). The method poses a systematic approach of data collection, followed by analysis, followed by data collection. The research process continues until theory generation is satisfied by meeting the criteria of locating no new information on the phenomenon under investigation.

Data Analysis

Open Coding, Axial Coding, Selective Coding

In grounded theory research there are three approaches or levels of data analysis; open coding, axial coding, and selective coding. Each level of coding, or analysis, represents a slightly more abstract view of the data. Analysis involves following a coding paradigm. This paradigm provides a systematic procedure for locating data as concepts and their relationships emerge. A coding paradigm described by Strauss (1987) includes the following

components: categories their properties and dimensions, conditions, actions/interactions, strategies, and consequences of various phenomena. The paradigm gives structure to the scattered puzzle pieces of data as an organizing force. Categories with their properties and dimensions illustrated are explained in terms of the context of the conditions particular to them. The influence of actions/interactions or strategies employed are made clear, and consequences are illustrated. The paradigm provides structure to the particular story line of a category and thereby helps the researcher discover what is going on in the area under investigation.

Concepts that are gleaned from data become more general in their explanatory power while still accurately reflecting the area under investigation (Strauss & Corbin, 1990). The process of abstraction is started by conceptual labeling of various salient aspects that emerge from the data. The theorist works with the conceptualizations that result from early and continuous analysis and not the raw data per se (Schatzman & Strauss, 1967). Labeling of concepts continues until linkages between concepts develop, and it is possible to begin to merge previously isolated concepts. These merged concepts may evolve into more major conceptual headings or categories. It is important to emphasize the point that a conceptual label must incorporate some degree

of explanatory power of the concept to which it refers (Strauss & Corbin, 1990).

Initially data are approached through a process called open coding. While this procedure is a first step in analyzing data, it may be repeated at any point during the research process in order to gain new insight into a particular phenomenon. The aim of open coding is to provide provisional concepts from the data. Word by word and line by line examination of the data is done. Early discovery of concepts or categories important to the phenomena under investigation stimulates further questions about them and may help the researcher pose provisional hypotheses (Strauss & Corbin, 1990). Attention paid to line by line or word by word examination of the data serves to elevate the researcher's perspective of the data and enhance the researcher's ability to understand what the data are saying. The process of open coding should challenge the researcher's assumptions about the phenomena under study and should begin to elevate the abstract conceptualization of the data (Strauss & Corbin, 1990).

Each step in the research process builds upon the previous step. Axial coding builds upon the concepts developed during open coding by further developing and by systematically tracking down relationships between categories. Techniques are employed to assist the researcher in imagining a fuller extent of situations and

consequences by making comparison at the extremes of a dimension (Strauss & Corbin, 1990). Hypothetical relationships derived by the axial coding process must be checked against data. When incoming data do not support hypotheses, then the hypothesis must be modified or eventually discarded (Strauss & Corbin, 1990). As the process continues and more variation is explained by the modified hypotheses conceptual linkages become more specific.

Selective coding proceeds as conceptual density begins to increase and the specificity of conditions begins to point toward a central category. The central category begins to show dominance during the axial phase of coding as it proves to have greater explanatory power than the others. During the selective coding process all categories are unified around this central or core category. The resultant theory should reflect a level of abstraction great enough to explain considerable variation, be well integrated, and parsimonious (Strauss, 1987).

Theoretical Sampling

In grounded theory research, the process of data collection is controlled by the emerging theory (Glaser & Strauss, 1967). Theoretical sampling differentiates grounded theory from other qualitative research methods (Glaser, 1978). Theoretical sampling is integrated into the method at each level of work. As codes are elicited from

raw data and are further developed and refined, constant comparative analysis is provided from purposely selected sources of data. This method of sampling is driven by the previous data collection and analysis where direction for asking questions, filling gaps and challenging hypothetical relationships emerge. Induced codes from data serve to direct the researcher's attention to subsequent comparison groups and theoretical purpose. In this way, the analyst is able to continually adjust data collection to ensure relevance to the emerging theory (Glaser & Strauss, 1967). In more recent work on grounded theory, theoretical sampling is defined as sampling on the basis of concepts that have theoretical relevance to the evolving theory. Current developments in grounded theory methodology stress that the basic units of analysis are concepts or incidents not persons (Strauss & Corbin, 1990).

Data collection continues until major categories have reached theoretical saturation. That is, no additional data are being found whereby a category can be modified or that the category generally holds up (Glaser & Strauss, 1967). As one category is saturated the researcher's attention turns to new groups (or concepts) for data on other categories. Theoretical sampling is done to discover categories and to suggest interrelationships in a theory. In grounded theory research, an adequate sample refers to how widely and diversely the analyst chose comparison

situations leading to saturation of categories. An inadequate theoretical sample is revealed by lack of theoretical density and poor integration with too many unexplained exceptions (Glaser & Strauss, 1967).

Theoretical Memos

The grounded theory generated by constant comparative method is based upon ideas and their relationships that stem from earliest exposure to the data. These impressions of the analyst's are written down as they occur while coding. Memos lead directly to abstraction. The process of writing memos parallels data collection and analysis. It is from the theoretical memos that the foundation of the new theory is built (Glaser & Strauss, 1967). Memos evolve in their nature and become increasingly complex as the theory develops. Later memos may extend and clarify earlier memos. Each step in the research process helps the analyst remain empirically grounded while promoting higher levels of abstraction in the emerging theory. The style of management of the memos, how they are organized and maintained is up to the individual investigator (Strauss & Corbin, 1990).

Evaluation Criteria

Grounded theory research, like other qualitative methods accepts, although modifies, usual scientific cannons. Different styles of research require different methods and different evaluation criteria. Evaluation of grounded theory research should follow the redefined

criteria for evaluation of studies (Strauss & Corbin, 1990). When research is conducted that claims to generate or extend existing theory certain issues need to be clarified. Four areas of concern are emphasized by Strauss and Corbin. Those areas reflect back on the philosophical basis and basic sampling questions of grounded theory research. They are: (a) judgements regarding reliability, validity and credibility of the data; (b) judgements about plausibility and value of the theory itself; (c) judgements about the adequacy of the research process; (d) judgements about the empirical grounding of the findings (Strauss & Corbin, 1990).

The first of the four areas commonly employed in critical evaluation of qualitative research concerns judgements about credibility, reliability and validity of the data and subsequent findings. The credibility of grounded theory research has been further challenged by critics in terms of scientific rigor. Labels of unsystematic, impressionistic and unsophisticated have historically haunted qualitative research (Glaser & Strauss, 1967). These criticisms stem from earlier attempts to use cannons guiding quantitative verification on issues such as sampling, reliability, validity and presentation of evidence (Sandelowski, 1986). Grounded theory methodology procedures have recently been explicated in greater detail (Strauss & Corbin, 1990).

Questions of rigor may be addressed in several ways. Some have suggested that a grounded theory report may be judged in terms of its plausibility and value by the degree to which information bearing on criteria for the data are provided (Strauss & Corbin, 1990). Others have listed more specific criteria for making judgements about scientific rigor in qualitative research. Those criteria are: (a) the truth value; (b) the applicability of the findings; (c) the consistency of the test or procedure; (d) the neutrality or freedom from bias represented in the data (Sandelowski, 1986). Taking the issues cited above point by point is helpful in clarification of these fundamental issues and questions.

The truth value of a given research report refers to how well threats to internal validity were managed. That is, how much confidence is there that this research design measured what it was supposed to have measured? How certain is the reader that the theory generated is not negated by rival hypotheses? Truth value of a qualitative investigation resides in the discovery of human phenomena that are lived and understood by the respondents themselves and not by the prior conceptions of the researcher (Duffy, 1985; Sandelowski, 1986). That means that truth is respondent defined rather than researcher defined. Qualitative research is credible, or truthful, to the extent that it presents faithful descriptions or interpretations of

human experience. This means that persons having experience in the area under investigation would recognize the experience as their own. A major threat to the truth value of qualitative research is posed by the researchers own biases (Sandelowski, 1986; Duffy, 1985). These biases may affect perceptions and interpretations by the researcher. Another threat is posed when too great a degree of empathy regarding the phenomena blinds the researcher to the truth of a situation. The researcher becomes so enmeshed with subjects that there is difficulty separating the researcher's own experience from that of the participant. This threat may be challenged by focusing upon how the researcher was influenced by and influenced a participant (Sandelowski, 1986). In grounded theory, constant comparison of concepts and properties directed by theoretical sensitivity helps the analyst recognize and overcome biases. The search for variation promotes a continual correction of data to the extent that the researcher is theoretically sensitive and asks the right questions. Disclosure of this process promotes confidence in data upon which grounded theory is built (Glaser & Strauss, 1967).

Applicability, according to Sandelowski, is evaluated by how well threats to external validity or issues of fit and work have been handled (Sandelowski, 1986). In grounded theory, the concept of fit means that the categories

emphasized by the theory must be readily applicable to and indicated by the data. Work implies that the theory must be meaningfully relevant to and explanatory of the phenomena under investigation (Glaser & Strauss, 1967). In grounded theory, the conditions and context of the theory are specified. This means the groups to whom the theory is applied and the circumstances under which the designated actions and interactions occur are specified. It is inappropriate to generalize findings from grounded theory research to groups, circumstances or conditions not specified by the theory (Strauss & Corbin, 1990).

Reliability is concerned with consistency and equivalence in the study. It is the extent to which repeated administrations of an instrument will provide the same results (Duffy, 1985). In quantitative methods, these questions are determined with statistical tests, but in qualitative methods, reliability is not so easily assessed. Grounded theory methodology emphasizes the field setting and acknowledges extraneous variables as exerting an influence that must be recognized for replication. The methodology requires the researcher to follow the leads of the participants. This approach may seem to have deliberately violated reliability in the quantitative method sense. This seemingly violated assumption is purposely done too promote understanding of a situation from the respondent's position (Sandelowski, 1986). The suggestion was forwarded that the

ability to audit theoretical formulations to the data be a criterion for judging consistency or reliability in quantitative methods (Sandelowski, 1986). Simply, this means that the researcher must provide a decision trail for the critics to pursue. If another researcher were to analyze the data with the information provided by the decision trail, comparable, not contradictory results would emerge. This admonition is furthered by others who suggest that enough detail regarding the adequacy of the research process be presented in reporting research (Strauss & Corbin, 1990). Some discussion of how the research process proceeded is necessary. Comments should be included on the following areas: how the initial sample was selected, what major categories emerged, what events pointed to these categories, which categories directed theoretical sampling and why, what hypotheses were generated, and how and why the core category emerged (Strauss & Corbin, 1990).

In grounded theory approach, the sample size is only known when the categories are saturated and no further data are required. The ability to generalize findings from grounded theory research is partially achieved through the process of abstraction of categories and concepts that takes place over the entire research process. The more abstract the concepts, the greater the explanatory power (Strauss & Corbin, 1990). A theory based on data cannot be completely refuted. Further, the constant comparative process infers

that a theory is never completed, but is in process to be modified or reformulated. It is written with the assumption that it is still developing (Glaser & Strauss, 1967).

Questions regarding empirical grounding of findings, as suggested by Corbin and Strauss (1990) lead the evaluator through a series of criteria that illuminate answers to the major threats. An initial question might search the degree of abstraction in concepts. Were they drawn from common usage, or do they reflect common usage? The foundation of grounded theory is a set of concepts grounded in data. Next one could assess whether or not the concepts are systematically related to one another, and are these linkages grounded in the data? These linkages should be systematically presented throughout the body of the text. Are these conceptual relationships sufficiently dense and integrated? The relationships should be specified at many levels of abstraction with their properties well defined and integrated within the theoretical statement. The range of variation and the specificity to the data sources should be presented. Are broader conditions affecting the phenomenon under investigation illuminated? That is, have issues from the larger social scene that may influence the phenomena under study been addressed in the analysis? If these factors are omitted, then the theory fails to meet the criteria for adequate empirical grounding (Strauss & Corbin, 1990). Following these evaluative criteria may help the

researcher achieve the criteria necessary to perform an audit and assure rigor in the research project (Sandelowski, 1986).

The last area of critique centers around issues of neutrality or objectivity and confirmability. Neutrality refers to freedom from bias in the research process and findings. Neutrality may be judged in qualitative research by objectivity or by the degree to which reliability and validity are established (Sandelowski, 1986).

Confirmability is achieved when audit criteria have been satisfied. It is important to include some statement indicating the degree to which the study and the study's findings are a reflection of the investigator in addition to the phenomena that was studied (Sandelowski, 1986).

Potential Problem Areas

Significance of Findings

If a researcher follows the procedures of grounded theory research without imagination or insight into what the data are saying, the results of the investigation will be trivial. The importance of the findings in stimulating further investigations will fall short of its goal if theoretical sensitivity and poorly directed questions have resulted in weak theoretical linkages (Strauss & Corbin, 1990).

Assumptions

Certain assumptions from the symbolic-interactionist perspective were integrated into the naturalistic approach to qualitative research and are reflected in the current research. They are as follows:

1. It is understood that a person lives in a symbolic environment and can be stimulated into action by these symbols (Blummer, 1969).

2. The meaning attached to symbols grows from the interaction process of role taking. This involves the ability to be self reflective, that is, to interpret, evaluate, and to respond to the symbolic gestures of others. A woman can take perspective on herself, and act toward herself as an object (Rose, 1980; Schatzman & Strauss, 1973).

3. Social learning is derived from the interaction process where shared meanings and expectations are developed through participation with culture and society. In diverse situations, a woman may simultaneously hold several perspectives on herself as well as on other things and events (Rose, 1980; Schatzman & Strauss, 1973).

4. The roles of an individual grow out of one's definition of self as a specific role player in given relationships. The individual's various

roles are understood both independently and collectively. Personal perspectives are social in origin and come out of social interactions (Rose, 1980; Schatzman & Strauss, 1973).

5. It is the collective view of roles that Mead called the "I" or the self conception. Previous roles are taken into the "I" as a permanent feature, even though specific roles may lose their relative position in the hierarchy of meaning or value. Thus a person acts with perspectives and definitions that become conditions for her own actions (Rose, 1980; Schatzman & Strauss, 1973).

6. The investigator does not approach the field of research as *tabula rasa*, or a blank slate. Rather, the investigator possesses theoretical sensitivity to the area under investigation. Theoretical sensitivity may be stimulated both by familiarity with literature and by clinical practice, and indicates "...an awareness of the subtleties of meaning of data" (Glaser & Strauss, 1967; Strauss & Corbin, 1990, p.41).

7. The aspect of discovery in grounded theory research is based on the assumption that, while the researcher may have theoretical

sensitivity to the phenomenon under investigation, the researcher does not have a theoretically adequate knowledge of the phenomenon (Strauss & Corbin, 1990).

Clinical situations familiar to the researcher have stimulated curiosity regarding the nature of the pregnancy experience of first time mothers over the age of thirty-five. In the same way, the researcher is influenced by previous experience with medical and nursing literature regarding clinical concerns attributed to this age and experience group.

Research Design

If a grounded theory approach to research is being considered, then one must begin with only the most general or tentative propositions, or generative questions, that avoid stating definitive relationships. The discovery process of grounded theory implies that initial questions raised do not need to be related to any particular theory. Rather, a loosely formulated scheme or framework is helpful in gaining conceptual entry into the subject matter and for raising relevant questions (Schatzman & Strauss, 1973). The grounded theorist has been described as a methodological pragmatist. This reflects the attitude that the researcher is less concerned with whether her techniques are positivistic than with what might yield the most meaningful data. The particular data collection technique is

determined by the context of the proposed study (Duffy, 1985; Schatzman & Strauss, 1973).

Early generative questions, insights, hunches came from experience with the phenomenon and/or from theoretical sensitivity by familiarity with technical literature (Strauss, 1987). Generative questions regarding the pregnancy and childbirth experience of mature gravidae provided initial direction in making distinctions, comparisons, and in directing sampling (Appendix D).

From early questions linkages among data, categories emerged, and sampling of concepts followed. Questions stimulated by interaction with the data were acted upon as concepts merged and missing links in the data base were discovered. Categories were collapsed into fewer more abstract concepts that circulated around a core concept or category. The process of interviewing continued until the categories were saturated and nothing more was gleaned from the data. Discussion of the research process will be elaborated in the following sections

Sample

The sample was a convenience sample of 20 childless, pregnant, Caucasian women over the age of 35 who were interviewed once during the third trimester of pregnancy and again during the first postpartum month. All participants resided in the San Francisco Bay Area of California. Participants were obtained from physician, and midwife

offices, clinics and childbirth education classes.

Respondents indicated interest in the project by returning a postcard to the investigator that suggested a day and time for further telephone discussion of the proposed research. Participants were then contacted by telephone, given further information regarding the project, and if the woman was interested in the project, able to commit to two interview times, and met the inclusion criteria, she was invited to participate.

Sample Selection

Permission to conduct the research project was granted from the Committee on Human Research at the University of California, San Francisco (Project Number: H5082-05352-01). Allowances were made in the research proposal to include as many as 40 participants in the project, but, in accordance with the assumptions of constant comparative method, the exact number of participants were not known in advance of the project and were only tentatively forwarded to satisfy committee requirements. Theoretical saturation of each of the categories was reached after 20 participants meeting the inclusion criteria were engaged in the project.

Inclusion criteria.

1. Participants were thirty-five years of age or older and expecting a first child.
2. Participants were able to understand and speak English.
3. Participants were greater than thirty-five gestational weeks of pregnancy at the time of the first interview.

4. Participants had an uncomplicated pregnancy to the time of the first interview.
5. The participant's pregnancy was singleton.

The criteria were held to as proposed for the twenty participants in the project. Two additional interviews were conducted for the purpose of comparing emerging concepts. These two interviews were obtained from women younger than the specified age for inclusion in the study. Data from these interviews were utilized to clarify and test conceptual linkages within the data generated by the sample group. This process of discriminate sampling was done to maximize opportunities for filling in developing categories (Strauss & Corbin, 1990).

Participant Characteristics

The participants were 20 childless pregnant women with an age range from 35 to 47 years and a mean age of 39.3 years. All were Caucasian, and were in heterosexual relationships. Within the group, 17 women were in marital relationships and 3 were in nonmarital relationships. The length of marital relationships ranged from 1 to 17 years with a mean of 4.3 years. For nonmarital relationships the range of length of time of the relationship was from 1 to 6 years with a mean of 3.7 years.

Educational levels attained by the women indicated that six had earned a bachelor's degree, twelve had a master's degree, one a M.D., and one a Ph.D. Of the twenty women, seventeen indicated that their employment was a career.

Women were asked informally about their plans to return to work. The majority of respondents indicated that they would be returning to their former employment within the first six months postpartum.

Religious preferences were indicated in half the participants and included; Jewish, Buddhist, Methodist, Presbyterian, Catholic, Episcopalian, and non-denominational spiritual practices. Those indicating a religious preference did not specify if they were currently practicing their religion.

Husbands or partners of the participants were Caucasian. The age range of the men was 29 to 52 years with a mean age of 38.7 years.

The educational levels achieved by the men were: one high school level education, one with some college, ten bachelor's degrees, one M.D., and two Ph.D. Of the 20 participants and their partners seven owned their homes (Appendix A).

Data Collection Procedures

Participants were told of the research project by their health care provider or childbirth educator. If they were interested in obtaining more information about the study they returned a pre-addressed postcard to the investigator. The postcard indicated what days and times were convenient for telephone discussion of the project. When postcards were received, the interested pregnant woman was contacted

by the investigator. The study was explained in detail and the women were asked questions to determine eligibility for the study. If they met inclusion criteria for the study, they were invited to participate in the research project. The first 20 women returning post-cards and meeting inclusion criteria were selected. The sample selection process spanned three months.

Once a woman agreed to participate an interview time was established according to her convenience. The majority of interviews took place in the respondent's home. Other sites included; physician's office, woman's place of work, and a coffee shop. Prior to the first interview the participant was asked to sign a consent form that described the nature and intent of the project and reassured the woman that she had the right to withdraw from the study or refuse to participate at any time (Appendix B). Additionally, at the first meeting, the woman was asked to fill out the demographic data form (Appendix C). The semi-structured interviews were tape recorded (Appendix D). Prior to the second interview, the participant was contacted by telephone. Follow-up interviews for clarification of key issues were done when respondents indicated a willingness to clarify or elaborate data.

Data Analysis

Data were analyzed according to the techniques of dimensional and constant comparative analysis in which

conceptualizations emerge from data to specify and define context and consequences of phenomena (Strauss & Corbin, 1990).

Open coding commenced following the initial interviews. According to grounded theory methodology data collection and analysis must occur simultaneously and continuously to generate a theory that is both grounded in the data and has highly integrated concepts. Following this approach yields a theory that has density in terms of revealing the complexity of the phenomena under scrutiny (Strauss & Corbin, 1990). Open coding is the first step in placing conceptual labels on discrete events of phenomena and is the primary step in examining data at an abstract level that leads to classification of similar concepts and grouping of concepts into categories.

Open coding of data collected for this research revealed several repetitive themes or concepts. A partial list of early concepts gleaned from data include: timing of the pregnancy, pregnancy planned or unplanned, information gathering, selection of health care provider, selection of biomedical options, communication of desires to others, knowledge about pregnancy and birth, sources of social support, partner relationship, decision making, comfort and safety, work career obligations, and the marking of time during pregnancy.

The properties or attributes of each of the concepts and proposed categories were described. Each property of a particular category or concept was described further in terms of its dimensional quality, or magnitude. Examining data in this way served to open the investigator to the range of possibilities expressed in the data and forced the researcher to observe the phenomena from another perspective. The process of early conceptualization or abstraction from the data is a fundamental step in being able to begin to answer the question posed to the investigator by the challenge of the research arena, what all is going on here?

From the initial list of open coded concepts, categories were formed, and interviewing continued with the focus now on exploring the range and depth of the identified categories. During this phase of analysis sets of actions/interactions were identified and were related to sets of conditions, categories, or intervening conditions. Gradually the context of the emerging theory began to take form as linkages between categories, actions, and consequences became more defined. Early categories derived from analysis of data included the following: (1) Knowledge; (a) Formal, (b) Informal, (c) Sundry, (2) Claiming; (3) Marking time; (4) Technological Options; (5) Life Design; (6) Control; (7) Social Relationships; (a) Partner, (b) Employment, (c) Family, (d)

Friends/Acquaintances. A memo written at this stage of analysis on the category/concept of control stated:

Following the decision to conceive or maintain an unplanned pregnancy certain considerations are addressed: how the pregnancy will fit into the gravida's ongoing life especially the work career, and the degree of control she is able to exert over the process(calling the shots- or I want it to go like this). This is to imply that there is a high degree of planning that is a part of this process. This planning involves social and personal relationships and aims to address even the biological aspects of the pregnancy process.

As the categories were described and analyzed according to the format of the explanatory paradigm they were expanded and clarified. Another memo written on the concept/category of control as it was being expanded and developed into a more powerful category stated:

There are apparently differing types of control. That is to say, control might represent a 'mind-set' to the particular gravida. For the sake of illustration I'll refer to a category that I'll label open control. This refers to interview B12, 01. She is talking about her posture toward managing the pregnancy and the events leading up to preparation for labor. The way in which she describes her experience is different than voices that I have heard in other interviews. She is actively accumulating information and support as the others do, but she is processing it differently. She is controlling in a more 'open' fashion.

Analyzing data and placing it within the paradigm as context, condition, action/interaction, or consequence moves the research process along to capture a greater world of meaning within each of the developing structures of the theory.

Categories were examined, expanded, merged, or clarified by the process of writing methodological and theoretical memos. With each interview opportunity new questions were posed to encourage maximal variation within each category to emerge and be challenged. Oral presentation of data analysis in progress with research peers provided a chance to debate and further explore findings. The circular technique of collection of data, analysis of data, discussion of data, and writing of memos served to generate new ways of responding to data and enriched the research process that eventually lead to identification of the core categories.

The core categories were selected over other competing categories for their ability to explain a greater portion of the variation expressed in the data. In the case of this investigation, the gravida's organizing perspective became a core category. This core category was built from earlier categories and concepts that indicated the gravida's desire for control over certain pregnancy events as a reflection of her previous history, ongoing life, and certain biological, social, and personal considerations. A memo reflecting the further development of the original control concept now designated as the gravida's organizing perspective follows.

Organizing Perspective Organizing perspectives represent a set of conditions drawn from the gravida's social, biological, and personal history that include strategies previously employed by the gravida as novel situations and life event challenges were confronted. These perspectives

inform the gravida in her search for knowledge, her decision making processes, and the types of interpersonal social support required by the particular gravida to meet the unique circumstance of first pregnancy. Three identified major organizing perspectives are: (a) Technical Perspective - The gravida's perception of pregnancy events as being of high risk to self and/or fetus and requiring intensive surveillance in a technological setting. The focus of the pregnancy experience is on planning and achieving certain technological landmarks that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into ongoing life. Concerns are expressed regarding a lack of confidence in the body's ability to function without expert guidance; (b) Intermediary Perspective - The gravida's perception of pregnancy events as being of some increased risk to self and fetus and requiring technological screening and availability but not necessarily requiring immediate or continuing access to technological intervention. The focus of the pregnancy experience is on planning in anticipation of pregnancy events and on the achievement of certain landmarks both technological and biological that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into ongoing life; (c) Process Perspective - The gravida's perception of pregnancy events as a normal sequence of development that are part of a larger continuum and a demonstration of interconnectedness with others. Risks to self and fetus are seen as a natural extension of the pregnancy process. Technological intervention is seen as unnecessary. There is an effort to avoid situations where technological interventions might occur. The focus of the pregnancy experience is on spiritual growth and maturity with reassurance coming primarily from spiritual/body sources.

A competing central category that emerged as the story line took shape was the special significance of the gravida's pregnancy time line. Properties and dimensions of this time line were linked to the gravida's organizing perspective and provided an immediate context for actions

taken by the gravida. These unifying actions taken by each woman were expressed as a summary process of orchestration. This action or process implied a type of synthesis or integration performed by the gravida in response to information gathering and decision making as events were presented by the pregnancy process, her past history, and her ongoing life. The central process of orchestration has specific consequences unique to the gravida's experience and these consequences serve to either modify or reinforce her organizing perspective.

At the point where sufficiency of both category saturation and depth of conceptual linkage has been reached and described, the initial theory generation process has been completed. Methodological considerations were paramount and integral with the research process. The technique of constant coding of data, categorizing, and placement of concepts within the explanatory paradigm allowed for the evolution of a substantive theory of the mature gravida's orchestration her pregnancy from conceiving to birthing.

Summary

The purpose of this investigation was to generate a substantive theory of how previously childless women over the age of 35 incorporated the events of pregnancy and childbirth into their ongoing lives. The theoretical framework for this project was drawn from the fundamental

premises of symbolic interactionism as it pertains to current methodological developments in qualitative research. Grounded Theory, a naturalistic-inductive method of inquiry and analysis was employed.

A convenience sample of 20 childless, Caucasian, middle class pregnant women over the age of 35 were interviewed once during the third trimester of pregnancy and again during the first postpartum month. Interviews were semistructured according to grounded theory techniques to permit identification of the evolving theory. Data were analyzed according to the techniques of dimensional and constant comparative analysis in which conceptualizations emerged from the data to specify and define the context and consequences of phenomena.

CHAPTER 4

ORGANIZING PERSPECTIVES OF MATURE GRAVIDAE, INTERVENING CONDITIONS, AND PREGNANCY-TIMED EVENTS

The purpose of this chapter is to focus upon and define structural components of the paradigm proposed for theoretical discussion of the pregnancy and childbirth experience of mature gravidae as discovered by the current investigation.

Organizing Perspectives

Women over age 35 becoming mothers for the first time relate their pregnancy and childbirth encounters with great variety in experience and diversity of opinion. One might wonder how can it be that one woman can relate a story of pregnancy that details one technological procedure after another and smile with pleasure remembering each turning point in her pregnancy experience, while other women, who share the same medical risk factors, choose to resist technology and deliver their babies away from the usual medical settings. From a medical perspective it may be too easy to dismiss these differences as unusual, dangerous, or even irresponsible. As a researcher, it is of value to discover and explain variation in behavior that is reflective of women's own stories and experience, that is, how they see it themselves.

In spite of controversy over innate risks associated with the aging process in general and information regarding

increased risk of giving birth to a genetically abnormal infant, women have their own impressions on how this information applies to their specific circumstances. As one begins to rehearse the possibility of becoming a mother for the first time certain changes in the way one regards one's self begin to occur. The kinds of social roles that one routinely participates in and those new roles to be assumed are modified in some way to allow for the emerging status of motherhood. Expectations of one's self and perceived expectations from a host of others impose demands upon the gravida regarding the performance of the desired role. A type of self analysis of the pregnancy situation, its inherent risks, and social expectations frame the conditions for meeting the challenges of this evolution in her personal biography. For at least thirty-five years she has managed her own life, has accomplished a host of goals, and has met multiple challenges, yet few of these are sufficient to prepare her for the types of personal compromises and questions provoked by the decision to initiate parenthood at an age considered by many authorities to be afflicted with risk to self and fetus.

Organizing perspectives represent a set of conditions drawn from the gravida's social, biological, and personal history that include strategies previously employed by the gravida as novel situations and life event challenges were confronted. These perspectives inform the gravida in her

search for knowledge, her decision making processes, and the types of interpersonal social support required by the particular gravida to meet the unique circumstance of first pregnancy. Organizing perspectives are statements summarizing a woman's orientation toward her pregnancy as formed by input from multiple sources, biological, social and personal. According to their personal organizing perspective, women will seek care, inform themselves and others, and will tailor their lives to ensure safety for themselves and their infants.

Three organizing perspectives were identified from analysis of data of this investigation. They are: (a) technical perspective, (b) intermediary perspective, (c) process perspective. Each perspective will be discussed in greater detail in the following sections.

Technical Perspective

A technical perspective represents the gravida's organizing perception of pregnancy events as being of high risk to self and/or fetus and requiring intensive surveillance in a technological setting. The focus of the pregnancy experience is on planning and achieving certain technological landmarks that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into on-going life. Concerns are expressed regarding a lack of confidence in the body's ability to function without expert guidance.

Women of a technical perspective believe that a real and continuous danger exists for herself and her fetus either because of her advanced age or because other factors convince her that, for her, pregnancy is fraught with danger, and it is in her best interest to seek medical care that will address these concerns. A woman who believes herself to be at high risk actively plans her pregnancy course around the medical care aspects of her pregnancy, seeking information and support from those who will help her in her quest for a healthy baby.

Extensive research is often done by these women in regard to various treatment options. They strive to maintain an active and inquisitive relationship (professional) with their health care provider. Her chosen health care provider is most often a specialist in a high risk obstetrical setting.

Prenatal genetic diagnosis is sought by women of this perspective. Access to this type of testing is seen to provide valuable information to a woman who is vulnerable by the fact of her advancing age to conceiving a genetically abnormal fetus. After the initial relief of having conceived decisions regarding the type of genetic to be performed predominate her thoughts. There is a reluctance to endorse the pregnancy as an on-going fact until the test has been done and results of genetic good health have been received. Unsatisfactory results from genetic testing would

lead to therapeutic abortion. Satisfactory genetic testing results impart an immense sense of relief to the gravida and are often celebrated by the announcement of the pregnancy to co-workers, family and friends. Along with presenting the fact of the pregnancy, gender results and the name of the fetus (now, baby) are also proclaimed to others. The release of the secrecy surrounding the pregnancy after reassurance has been given promotes an opportunity to devote energy to other parts of the gravida's on-going life. Her work career becomes a major focus as does her spousal or partner relationship. As time or opportunity permits, the gravida seeks out acquaintances that are experiencing or have experienced pregnancy and child birth under similar circumstances. For women whose experience is framed by this perspective, efforts to incorporate the 'natural' or alternative choices into prenatal care are largely unsuccessful. For instance, childbirth classes originally designed for women seeking unmedicated or out of hospital childbirth are described as trivial and boring, or even dangerous, by these women.

She expresses the success of her pregnancy and childbirth experience in terms of satisfaction with how well the medical plan worked, how there were few surprises, and how fortunate she is to have access to these technical resources. The path of her pregnancy seems to fall into discrete packages from conceiving through an extended period

of guarding into an attenuated phase of embracing and on to birthing.

Intermediary Perspective

Gravidae of an intermediary perspective perceive pregnancy events as being of some increased risk to self and fetus and requiring technological screening and availability but not necessarily requiring immediate or continuing access to technological intervention. The focus of the pregnancy experience is on planning in anticipation of pregnancy events and on the achievement of certain landmarks both technological and biological that indicate movement toward the desired goal of a healthy baby and the social integration of the infant into on-going life.

Women sharing this orientation view their pregnancies as having some increased medical risk needing technological screening or management, but they also recognize and incorporate certain social and spiritual aspects of the pregnancy process as a central theme in their perspective. These women tend to focus on planning in anticipation of pregnancy events, and on the achievement of certain landmarks, both technological and biological that indicate movement toward the desired goal of a healthy baby. Decision making is undertaken after considerable research of existing options in health care. Women with an intermediary perspective view prenatal diagnostic testing as a benefit to their prenatal care. The early decision to have prenatal

genetic diagnostic testing affects how these women relate to their early pregnancy and and how they subsequently manage the remainder of their pregnancy experience. For each of the women of this perspective interviewed, a period of suspension of commitment to the pregnancy exists. This period of suspension, or guarding, produces some dichotomous situations. These situations result from an intense desire to share the fact of pregnancy with others as weighed against a need for privacy in case the pregnancy is ended by therapeutic abortion.

When genetic testing has been favorable and the pregnancy is declared viable, it is as though "a switch has been thrown". Attention is quickly turned to the task of incorporating the expected baby into the woman's ongoing life including recognition of bodily signs of pregnancy and other social and personal meanings attached to childbearing as a uniquely feminine event. This change of focus signals that the phase of embracing the pregnancy has been entered. The remaining time of pregnancy now seems very short for all that the woman feels needs to be done. Women who are of an intermediary perspective feel most at ease in a hospital setting. Health care providers chosen by these women include both obstetrician-gynecologists and certified nurse midwives. Women of the intermediary perspective have a wide range of sources and resources for informing themselves about pregnancy and early parenthood. Books, both lay and

technical publications, childbirth educators, health care providers and women friends are the most commonly cited information sources. More problematic than locating information is the process of decision making in the presence of so many competing options. At each juncture of the pregnancy new situations exist where previous experience has been inadequate to satisfy the woman's need to know what to expect or to anticipate the best course of action.

Women who share the intermediary perspective view the course of pregnancy and childbirth in terms of connected intervals of time where landmarks, both biological and technological, were achieved. Satisfaction with the pregnancy and childbirth experience is related to how well the experience matched expectations and planning efforts and is judged in terms of the appropriateness of her orchestration skills in managing the events of pregnancy.

Process Perspective

The process perspective represents the gravida's perception of pregnancy events as a normal sequence of development that are part of a larger continuum and a demonstration of interconnectedness with others. Risks to self and fetus are seen as a natural extension of the pregnancy process. Technological intervention is seen as unnecessary. There is an effort to avoid situations where technological interventions might occur. The focus of the pregnancy experience is on spiritual growth and maturity

with reassurance coming primarily from spiritual/body sources.

Women with a process perspective express the view that, while dangers exist, the importance of a birth of a child transcends medical concerns. Pregnancy represents an unfolding of possibilities and potential for personal development through this unique biological, social, personal process. While confirmation of pregnancy might be sought through common medical practice, the remainder of the pregnancy and birth experience is sought outside of traditional medical settings away from procedures that would interfere with the process unfolding for herself and her family. Gravidae of a process perspective maintain a belief that pregnancy is a normal process that includes certain innate risks to self and fetus. Technological intervention is understood to be of little value as the outcome of the process would remain essentially unchanged. That is, if genetic testing were done and an abnormal fetus was identified, the gravida would still have to mentally and spiritually digest the fact that she had conceived a less than perfect fetus. Abortion was not seen as providing an solution to the dilemma. The situation once presented must be acknowledged and placed into the context of her on-going life. The pregnancy process was understood as part of a larger spiritual process.

Women who are oriented toward a process perspective actively seek to avoid situations where medical technological interventions might occur. There is a trust that whatever is offered by experience is enriching to one's personal growth and understanding and has distinct purpose and value. Women of this perspective will exhaust all available personal and social resources before turning to technology or traditional medical environments for care.

Sources of information for women who focus on the process aspects of pregnancy are primarily from personal, biological and informal social sources. Pregnancy is described as part of a continuum or process of personal development and connectedness to the larger world.

Satisfaction or dissatisfaction with the pregnancy and child birth experience was gauged by how closely the process was allowed to unfold without outside interference.

Intervening Conditions

Intervening conditions may also be referred to as a gravida's risk context which incorporates her personal interpretation and classification of social, biological and personal risks associated with pregnancy. In this way, risk is subjectively assigned as one's perception of danger to self or fetus as understood by a particular woman as she estimates potential peril from personal, social and biological threats. For example, the gravida's view of what constitutes a threat may have very little resemblance to

what her health care provider understands to be a threat to the pregnancy. Placement of these intervening conditions within the gravida's hierarchy of concern represents a dynamic process of action and reaction in response to actual and anticipated events as they randomly occur across the time span of pregnancy. Variation occurs in the degree of perceived risk (high to low), along temporal dimensions (short term, long term, immediate or delayed), and in intensity of the demand from the perceived threat (high, low).

Pregnancy-Timed Events

Accompanying the expectations, plans and decisions to be made as pregnancy is confirmed is the biological mandate to wait. The pregnant woman waits the term of pregnancy to hold the infant. She waits for fetal movement as a signal from the fetus that life is indeed there. She waits for the health care provider's reassurance that everything is going well, and she waits for the results of tests performed to reassure her that age related risks are not affecting her infant. The events of pregnancy can be explained as biological, social or personal constructions having particular and unique meaning to the individual experience of pregnancy. Four time periods of significance to mature gravidae were identified from the data. They were: (a) Conceiving - a time period that includes both social and biological events, and spans the period of time from the

intent to pursue pregnancy through confirmation of pregnancy; (b) Guarding - a socially or culturally defined period of time spanning from confirmation of pregnancy to the time period of embracing distinguished by uncertainty regarding the future of the pregnancy and by competing concerns from both maternal and fetal sources; (c) Embracing - a socially or culturally defined time interval spanning from the end of the period of guarding to birthing. It is distinguished by claiming behaviors such as naming the baby, actively planning for birth, and incorporation of the child to be into one's on-going life; (d) Birthing - a biologically mandated period of time signaling the end of the period of pregnancy. Each pregnancy-timed event builds upon the experience of the previous event and provides a general context for the subsequent event(s).

An example of a socially or culturally defined pregnancy-timed event is the vulnerable period of guarding. It is implied that guarding denotes an emotional restraint in attachment to the pregnancy until certainly regarding its future is sufficiently assured. Guarding serves to protect the mother from deeply attaching to a nonviable pregnancy. It further decreases the opportunity for undesired criticism from others. A sense of protection is also evoked by guarding the pregnancy. Certain dietary and exercise restrictions are initiated often without further explanation

to others. Selection of available tests also reflect efforts to protect the fetus from unnecessary harm.

How the mature gravida organizes and incorporates the flood of information and decisions to be made reflects her past experience, the needs and desires of her family, her self, her multitude of role obligations. She solicits information from a host of sources not only to become knowledgeable about risk to self or fetus, but to supply data for decision making. A tool to assist her in managing her progress thru her pregnancy experience is to mentally divide the time of waiting into intervals or phases that represent critical junctures or hurdles that have been accomplished and signal that she has entered into a new phase that is closer to the desired goal. With the information gathered from her risk evaluation, self-education, interpretation of bodily signals and discussions with significant family, friends or authorities, she begins to organize her approach to her pregnancy. Management, or orchestration, of the pregnancy through understanding necessary life modifications and maternal fetal risk provided gravidae in this investigation a sense of control that is both familiar and comforting and leads to expressions of increasing confidence in her ability to bring this experience into her on going life.

Further elaboration of pregnancy timed events identified in this investigation will be discussed in

greater detail with examples from data representative of the three identified perspectives in the ensuing section.

Conceiving

For many older women choosing to bear a child for the first time after the age of 35, this is not the first pregnancy. For an array of reasons, the time for conceiving and childbearing is now appropriate. Considerations including biological, social, and personal concerns are weighed and evaluated in the woman's decision making process. Women over the age of 35 who are becoming mothers for the first time tell a story that often begins with a description of a fantasy of early thoughts about becoming a parent, a story of how it would be, and when it would be. Some women tell of being pregnant before, but, for various reasons including education, mate relationships, and professional considerations chose not to continue the pregnancy.

Now the timing is right, and most of their life's major considerations have been addressed in a way that they feel that pregnancy is appropriate. For some, pregnancy is easier to attain than expected. For others, it represents a long and difficult set of invasive therapies.

The following sections are segments of data from each of the identified perspectives addressing the pregnancy-timed event of conceiving.

Technical Perspective

The following quote is from woman of a technical perspective speaking about her period of conceiving.

"...I conceived when I was 35. I was 32 when I started thinking about getting pregnant. I pursued some sort of care and found out about endometriosis...I went through hormone treatment of the disease. That was disgusting. And conception was no longer, what shall we say, a pleasurable experience...it was a headache. We did everything except IVF and GIFT."

Another woman of a technical perspective speaks about conceiving.

"...I kept looking for Prince Charming. It took awhile...and then when you are married and older it really is a trip. We went to the infertility clinic to get pregnant. It's like you are terrified - all that stuff that goes on about sex when you are single and now you are trying to conceive! We needed all the help we could get..."

Intermediary Perspective

The following quote from data is from an intermediary perspective woman speaking about the pregnancy-timed event of conceiving.

"I didn't feel incredible pressure (to become pregnant) but it came at a good time in my life and in my relationship to my husband. But, you know I had passed that magic age (35) so you just never know... I felt like we really probably needed some advice, but my insurance wouldn't cover it... We thought that we may as well go ahead. I was surprised that it was so easy."

Another woman of an intermediary perspective states:

" Your age is really a factor in infertility... It took us about a year and a half to conceive. We had to go to various counselors about it and we had tests and all that, but we never had to do any treatments. I did have the tubal thing (hysterosalpingogram)... I think those things helped, but you never know- we probably could have done it ourselves..."

Process Perspective

Two example drawn from the data representing women with a process perspective are presented below.

The first woman tells the story of her conceiving phase.

"Well, first of all the pregnancy wasn't planned. But, when it happened it was the most perfect thing after having been on a three month retreat to work on my self and my relationship. Everything fell into place...it gave us a real focus. So, it felt quite logical getting pregnant and the chain of events that followed..."

The second woman's story follows:

"I started conceiving of it as a possibility in my late 20's and started wanting to make a decision about it in my early 30's... When I was 32 it became a serious issue... Now I am 40 and well, it took no time at all. My reaction was that having wanted one so much, actually what was so important to me was taking the chance. It would have been ok to have taken longer - it wasn't the desire to be pregnant so much as the desire to take that chance that you might. That it might happen is so terrifying - just to dive in and take the chance. Throw caution to the wind."

The next pregnancy-timed event is the period of guarding. Guarding will be illustrated by examples drawn from data according to perspective.

Guarding

The desire for a healthy baby is deeply felt by all. However, the acceptability of an unhealthy baby, particularly from a genetic perspective is limited. Technology has provided a way to preview an infant's genetic structure early in the pregnancy process. What this capability and information means to women who are not only eligible, but encouraged to avail themselves of these tests varies widely. Regardless of whether or not testing is chosen, tension exists over the well being of the pregnancy. Women fear the loss of the pregnancy from natural as well as induced (or elected) sources. How this tension is managed by women and what signals sufficient information to put these fears aside differs according a woman's orchestrating perspective. The majority of women (17/20) chose to have prenatal genetic diagnosis. All are informed of the importance of the testing as it represents medical malpractice not to fully inform a woman of her chances of genetic abnormality. Most women having prenatal diagnostic testing chose not to reveal their pregnancies to the public until after the results of the testing are received.

For example, women who consider themselves and their infants at increased risk are likely to undertake prenatal

diagnostic testing. For these women the period of guarding extends until results of the testing are known. This has social as well as personal consequences. Who is told about the pregnancy and how it is told reflect the woman's need for privacy while she manages the tension of balancing concerns for her infant with her own biological and personal response to pregnancy. Within her body undeniable changes of pregnancy are occurring (quickenings, bodily growth). She often elects to keep these as a secret even to herself until test results are in hand. In an effort to keep painful explanations to a minimum she frequently tells very few others that she is pregnant in case laboratory testing reveals an unacceptable result and abortion is chosen. Those who do know of the pregnancy are likely to be those who would be supportive rather than critical of a decision to terminate the pregnancy on the basis of test results. The majority of women in this age group are involved in demanding careers and have considerable responsibility. Many do not inform others in the work place of their pregnancies. If they do inform co-workers they seldom acknowledge fatigue or other pregnancy symptoms that might indicate interference with performance of work duties. Often these women assume greater responsibility at work as a sort of insurance policy for the future when additional time off might be mandatory.

For many women this time period is filled with tremendous tension. Often women feel quite nauseated and have other pregnancy symptoms; also, they have the emotional need to tell people about this long delayed and desired event. Knowing that they may choose to abort the pregnancy if it is abnormal prompts the majority to remain somewhat secretive about it. The secrecy seems to be a protective effort to keep the pregnancy as private as possible so that a minimum of explanation would be called for if abortion was selected.

Women not choosing genetic prenatal diagnosis experience these early weeks of pregnancy somewhat differently. Less secrecy is involved leading to earlier announcement of the pregnancy to family and, especially, to friends and co-workers. Being able to share feeling of concern about the pregnancy with others eases the waiting and anticipating that are part of the experience. A variety of reasons; religious, philosophical, and mystical, explain why these women decided to ignore age-related risk information and to choose not to seek technological intervention.

In the section below examples from the data will illustrate how women talked about guarding themselves and their pregnancies.

Technical perspective

Women of a technical perspective involved themselves in other activities to divert attention from the waiting and wondering about the future of the pregnancy.

" I know that my chances of having a spontaneous abortion are higher. So, I sweated until 16 weeks when I knew that I would be having an amnio. Then statistically there is some additional chance of having an abortion as a consequence of the amnio...(speaking of husband)... Men are so technical. They don't understand what is going on. I was so nauseated - unbelievable for 16 weeks. I couldn't tell anyone... So I spent a lot of energy at work on this project I am trying to start - that's real hard to do when you are that nauseated - unbelievable..."

The next example is from data of a woman with a technical perspective. Her place of employment was particularly hostile toward pregnancy. She didn't want to let them know until she was certain that the pregnancy was going to be maintained.

"I was really afraid, especially at work. We hadn't had the testing. I had to wait until the tests were done and the results were in. I trust my doctor's judgement completely. I couldn't tell anyone at work and I had some business trips coming up. We were told that the early test might damage the fetus. It was pretty traumatic to me, but I believed that we had to have the information. The only reason that you have the testing after age 35 is because the risk of the procedure no longer exceeds the risk of having the disease. When you think of loosing the pregnancy because of the procedure - you can really go crazy. But it has to be.

I believe that we are lucky to have this available to us."

Intermediary Perspective

Women within this perspective vary more widely in terms of preferences than either of the two other groups.

The first woman comments on the time period of guarding.

"I sort of ignored it (the pregnancy) until I couldn't ignore it anymore. We love to cycle. Well, I don't do it anymore because I might fall off and loose the baby. I had the early test done (Chorionic Villus sampling). I had to know before I felt it move. I thought at the time (that she found out that she was pregnant)... I know - I can feel it - that this is going to be the very best thing that I have ever done!... At the testing I trusted the doctors and I decided that I was going to go with it. I was afraid that it would show Down's syndrome or something, and then I knew what I was going to do. I was going to just (snap) with out hesitating. Get rid of it."

Another woman of an intermediary perspective comments on guarding:

"I was real angry. Not wanting to make a choice. It's awful. I feel very disconnected from that anger (now), like it was someone else. I had forgotten about it until now. It's like, I feel that there is no way that I could kill my baby, yet I probably would have if there had been a problem. I think that it was probably good to feel that way, because it would have been a real shock to be preparing to deliver a damaged baby. I guess it is a mixed blessing."

Process Perspective

The last comments on the guarding period are from data of women with a process perspective. Deciding not to pursue genetic testing when those options were available caused each woman in the study to ponder the ramifications of her decision. Sufficient information about the well being of the pregnancy came from sources other than laboratory results or health care providers reassurances.

The following is an example from process perspective data:

" I didn't know that I was pregnant at the time - that night I had two really stiff vodka martinis. Then the next week I found out and thought oh my God, I have drunk all that booze. I've done terrible things to the baby. It churned up a lot of feelings of insecurity and fear... We discussed it - genetic testing wouldn't give us anything. We needed to feel the baby move. Generally, I think men are more interested in that (genetic) sort of knowing. I think that we both feel that we need to take responsibility for what we are creating and not hand it over to someone else to deal with. We hope - oh God, don't let it be Down's. It would be awful. It would be miserable. Then we shrug it off and say we will see."

A second description of the guarding phase by a process perspective woman follows:

"I was thinking, Oh God, I didn't have an amniocentesis. I haven't had a sonogram. I haven't had bleeding or cramping. I haven't had anything. But, you see for the first six months, it was really hard for me to believe that there was anybody in there - then all the wiggles and bumps came. So, it's real

hard to think about genetic testing when you find it pretty hard to believe that there is a baby in there and a baby is going to come out of there and be a person... I don't see any cause for alarm... I kind of think that I come from real peasant stock, and that has to stand me in good stead. Anyway I don't get the point of abortion - you simply live your life."

When sufficient reassurance has been provided either by laboratory test results, by health care provider counseling, or by bodily signals the woman begins to recognize the pregnancy as probably leading to the birth of a child. As this recognition supplants earlier concerns of the tentative nature of the pregnancy new situations are confronted by the gravida.

Embracing

For women choosing prenatal genetic testing, relief from the period of guarding is found when receipt of favorable laboratory results are available. Receipt of news of a genetically acceptable infant brings with it the opportunity to announce not only the pregnancy, but the gender, and perhaps, the baby's name. The sense of relief experienced by women was great enough to act as a pivotal experience in the pregnancy experience. Some women described actually having felt the baby's movement prior to the test results but not acknowledging it until after the 'healthy' results were given. Others told of hearing the results and going out to purchase something for 'my baby'. It is as though a switch is thrown and suddenly the

pregnancy is incorporated, embraced, and given a place in the woman's future plans. Women who have had prenatal diagnostic testing are often half way through their pregnancy before the confirming information is received. Minimal discussion of the pregnancy proceeding to term has occurred prior to receiving the test results. Family, friends, and co-workers are informed, and discussion of the anticipated changes begins. Negotiations with spouses about the reality of the pregnancy and the consequential adaptations take on a serious tone. There is a sense of urgency and an almost studious effort about what needs to be accomplished prior to the birth of the infant.

The pregnancy-timed event of embracing will be discussed by perspective in the following section.

Technical Perspective

Many of the women who believe that risk to their baby or to themselves continues to be high tended to continue pregnancy with a modified sense of guarding. In this investigation these women were of the technical perspective group. It is important to understand that this assessment of risk is the woman's own view or attitude and was not necessarily shared by the medical community. For these women, prenatal classes designed to prepare one for childbirth are often seen as boring or trivial. Technical books and physician opinion are the chief sources of information and reassurance. Her confidence was framed in

terms of what the medical profession had been able to offer her.

The subsequent vignette is taken from data of a technical perspective. This particular woman's story reflected the fact that she regarded herself to be at increased risk for a panorama of medical problems.

"Now the baby demands my attention... (regarding LaMaze classes)... They're boring. I don't like the regimentation. I don't want to be told that trivial stuff. I need to get in touch with what is going on... The classes were focused on process and forming an emotional bond with the process of labor and birth. They offered suggestions on how to prepare. My problem is that I am just now working on the emotional connection... You just have to do it at your own pace... You have to disconnect from work and reconnect with a baby. Frankly work is more interesting right now, and what I want in labor is pain relief."

Another woman explained her embracing period as follows:

"...My husband called me at work and said that someone from Kaiser had called. It occurred to me that it was the person with the lab results. I knew that this was it. I called and he told me that I had a normal boy. I thanked God for not making me have to deal with the decision to abort my baby. Then, it was, Oh boy - it's a boy! I had to reorient my thinking. I wanted to do that. I wanted to relate to my baby right away. I knew that not all the dangers were over and that we would need more testing but I was happy! Pinkie is a boy! We came up with a new name for him. We called him Dukie. That was neat we told everyone. We were so grateful for our good care. We knew

that we made the right decisions. I called everyone in tears and let them know that we had a boy! ...I took LaMaze classes. We never practiced. Breathing is breathing. I want drugs. I got the picture - labor is awesome. Why do it when you can get relief?"

Intermediary Perspective

Women of an intermediary perspective incorporate genetic test findings into their own interpretations of the pregnancy process and began to seek ways of preparing themselves to become a parent and to give birth. Much emphasis is placed on the couple relationship in negotiating how it would be after the baby comes and what the expectations during labor and birth are. Considerable energy is devoted to the job situation in hopes of creating a situation that would accommodate her new role as a parent. These women, like the others, have extraordinarily high expectations of themselves in their job careers. Often they are in very responsible positions and are intending very little time away from work for maternity reasons. Since their mate relationships have often included negotiation of children in the partnership, and since there is an expectation that the distribution of household labor will remain egalitarian, few expect that the addition of children will effect their job career unless they permit such an interference to occur. Situations are sought that give the opportunity to talk with other women about the experience of birth and parenthood. Intensive instruction about labor and

birth are undertaken through both formal and informal routes. A faith in the pregnancy process and their ability to deal with any eventuality is a prominent feature.

The succeeding excerpts from data indicate the embracing time phase for intermediary perspective women.

"We have the cutest picture of our baby at 12 weeks. It is a profile. I know now that he was always a real baby. I just couldn't deal with it until I knew what I had to do. I found out that he was ok and I felt him move. It has been a great pregnancy... Before the amnio results came back, I looked at some books and saw that he has hair and has nails and can suck his thumb... I know that labor will be the most strenuous thing that I have ever done, and that it really hurts. I can't imagine it. I am taking birth classes and I love to focus on this part of it. I just feel like whatever it takes, I am going to be able to do it."

The second example follows:

"I guess that it was after the amnio that I really got into the pregnancy. We found out the sex and so I really started attaching to him - thinking about him as a person and all. I also just started looking more pregnant. Then I started buying things. We started talking about things as though they were going to continue. Whereas before it was...if it is alright...you know sort of couching things in ifs... We hired a private teacher to instruct us on how to labor. I think that we can ask lots of questions answered and begin to focus in on the process of everything. I would feel real uncomfortable away from the hospital, but I don't want to use anything that I don't need."

Process Perspective

For women not experiencing prenatal genetic diagnosis relief from the sense of guarding is sought through the presence of fetal movement, the enlarging uterus, and the absence of threatening symptoms such as bleeding or cramping. At the point where routine clothing is no longer practical and when an active fetus is making itself known, a sense of relief, described a confidence in the pregnancy, is noted by these women. Signaled by a belief that the pregnancy will probably proceed to produce the desired infant, women now embark upon incorporating this anticipated event into their ongoing lives. For women not having genetic testing, family, friends and co-workers have known about the pregnancy for some time and discussion of the anticipated life with baby has been broached. Women of a process perspective enter the embracing time phase generally earlier than those having testing since sufficient reassurance is often a woman's interpretation of her bodily good health. Negotiations within the spousal relationship have occurred in anticipation of the adaptation, and plans regarding the birth have been discussed. Relationships with one's parents, particularly the woman's mother, tend to take on new meanings. Perceptions of threats to the pregnancy or considerations of risk have become a lower level concern. Diet, exercise, meditation, childbirth preparation are of more central concern.

"I went through a period where I wanted to get all that information (about seeing childbirth videos). Then after I didn't get it, I thought that I'd be better off without seeing it - seeing other people's pregnancies and births - we are all different. It's just like not wanting to know the sex of our little child. We enjoy the mystery of it. And so having that mind set we prepare ourselves for the surprise of birth."

The second illustration ensues:

"I have always paid attention to this little being but now I suddenly (after feeling the baby kick) felt like I wanted to take a week or two - how ever long it's going to be to really sit (meditate) a lot and calm down a bit and get focused - begin to get some strength for labor."

The pregnancy-timed event of embracing ends when the biologically mandated time period of birthing begins. That is, the focus of the gravida's attention is no longer on preparation and incorporation of the pregnancy in anticipated of a child. attention is now focused on the task of birthing.

Birthing

As the due date approaches all energy seems to focus on the coming event of birth. The sense of confidence that has been nurtured over the pregnancy through her relationship with her spouse, care provider, friends and by the knowledge that she has acquired set the tone for the birth stories. Faith that birth is a natural process and that she, the laboring woman, can accomplish it adds further dimensions to

discussions of the birth event. Women in this age group have accomplished many difficult tasks in their lives. High expectations of their performance in labor predominate. Pain and the ability to deal with it while maintaining dignity and a sense of integrity are of immense concern. Hopes are directed toward the ability to control to some extent the events of the labor.

Route of delivery, the necessity for pain medication and other obstetric interventions are framed against the woman's own evaluation of the risks to self and infant, her social relationships and the immediacy of the situation. Her later interpretations of the birth event reflect possible options that might be exercised in future pregnancies or other strategies that might have been more useful.

The birth of the infant signals the conclusion of the pregnancy and the beginning of the parenthood role. How she embodies the events of pregnancy and childbearing and initiates her new parent role reflect satisfactions or dissatisfactions of this process and will be reflected in the manner that she approaches future challenges.

The time phase of birthing will be illustrated with quotes from data representing each perspective.

Technical perspective

An example of birthing and technical perspective:

"I told them that I wanted an epidural right away. They wanted me to wait a

bit. Labor went no where. I simply could not cope with the pain, and my membranes had been ruptured for 10 hours... Nothing went right. The nurses weren't helpful. I needed expert help. They were trying to orient a new one on me. The epidural didn't work. If you can believe this my anesthesiologist had menstrual cramps! My back was like a sponge. I got stuck so many times... When the c-section was finally done, my anesthesia was incomplete. Can you imagine? I am telling you it was a real drag. I feel that we should have operated sooner. What was the point? The baby needed to come out and it was obvious that labor was going no where. The baby was just fine. I think that the whole thing was a miracle. My poor husband had to take care of the baby for the first week. I had a spinal headache from all the punctures. I just laid flat in bed - every two hours someone would lay the baby on my chest to nurse... Next time I'll just elect a C-section"

A second example of birthing and technical perspective:

"I was there (in the hospital) and I was so scared that something might go wrong. I couldn't wait to hear the baby's heart beat on the monitor. The pain made me throw up and that was more than I ever imagined. That's why I wanted an epidural right a way. I was afraid that they would make me wait. In the birth classes they kept talking about waiting too long and not being able to get medication. I knew that I wanted it. You wouldn't believe what you get when you get an epidural. Monitors everywhere. Pneumatic blood pressure cuffs, the ET finger, the fetal monitor. I just lost track of everything. It was great... I could just rest - I was incredibly tired and anxious. Then someone said, you are at ten centimeters, you can push now. I hated it. I pushed for three hours. I said, I don't want this baby. I was so frustrated. It couldn't stay in and it

had to come out. Thank God for the miracle of surgery... My husband was there to take pictures... I was numb from my breasts down. I didn't see the baby come out. I didn't know if he had red or brown hair. Then I saw his little face - it was so unreal you could have brought me any baby... I was no longer in control, but it was wonderful because the nurses were wonderful. This nurse put him right next to me and helped him to breast feed. I don't know how she did that. It was a miracle..."

Intermediary Perspective

The following examples from data represent the birthing time phase for women of an intermediary perspective.

"I went into labor on her due date. It was rather a protracted affair. Labor sort of petered out. I ended up on pitocin. When I got to the hospital and the contractions stopped. They had me walk around and all, but it was just sporadic contractions. My water had broken the night before and the doctor didn't want to wait around with that; so we decided that pitocin was the way to go. I didn't realize how strong the medicine would make the contractions. That went on for about another 12 hours or so. I never had that incredible urge to push that they talk about. The doctor was there and there were two nurses. They all asked me to push. That went on for about three or four hours. We just didn't get anywhere. The doctor used that vacuum thing. I guess it was because I had the epidural that everything went on and on, but I wouldn't do it without it. They just pulled her out... She had the cord around her neck so the ending was pretty exciting. Her color was pretty poor, but her heart rate had been great all the way through... We came home the day that she was born. It was great to be able to use what you need and nothing more. I would tell other women just what they said in class, that is, just

take one contraction at a time, and that it just another day in your life that changes you forever."

A second view of the intermediary perspective and birthing:

"We are safely in the hospital, it is night time and no one else is in labor, and I am feeling them as intense - I mean that I wasn't out of control or anything, but I knew that they were going to get harder and closer. I was real concerned that I let everyone know that I am not going to be a heroine. I'd try to do it naturally, but if it didn't work for me I was willing to call the anesthesiologist. The midwife suggested that I move around. I'll have to say that moving around was not my favorite or most pleasant experience. So here I am out walking around the hallways in this public area, except I sort of knew that I was by myself. This was major uncomfortableness - this kind of pain and it doesn't matter where or how you are, it hurts. I felt free to yell - I had fantasies about being quiet, but it felt real good to yell and no one seemed to mind. Then I started to push. Nothing prepares you. It is a real mind set. You kind of have to get to know it... When the baby was born, I could feel him down low. I thought, it is too late for medication now! His heart rate went down. The midwife acted so quickly. My husband and I are awestruck, amazed and grateful. It isn't just in the movies that babies are put on the mommy's tummy right after birth. I thanked God that he was alright. I felt warm with pride and love for my husband and baby. We have been together ever since. You simply are not prepared for the bigness of this!"

A third example of birthing and intermediary perspective:

" I never doubted my decision to be in the hospital. I felt real comfortable. If I had been younger I would have done this at home, but I guess this might have been my only chance. I danced my baby out. I held tight to my best woman friend and chanted in her ear to the rhythm of my contractions. I was the hardest thing that I have ever done. I simply could not believe it. Labor is huge. It plays with you. You begin by feeling a little giddy, then it gets serious and then it really gets serious. You think inside - I can't take any more. Then more comes and you do take it. It is amazing. Dancing is the best. You relax and can keep away from the medicine. I liked hearing my baby's heart beat on the monitor when the nurse would check. I would like another one. Pushing was really hard, but when I saw him, I couldn't believe it. He was simply the most beautiful baby ever. He was more than a baby. He was the moon and the stars. You know this really is the meaning of life..."

Process Perspective

The last two examples from data represent birthing and the process perspective woman.

The first example:

"What I really learned was that having my friend at the birth really wasn't helpful because of the conflict it set up. My husband finally told her that we didn't want to hear her opinions. She was interfering with my progress in labor with her fear. She saw it as his being anxious and needing to express himself by letting his anger out on someone and she was the person. It didn't help me with my labor progress. In the end I was holding back a bit and feeling a little tense because of it. She has been a wonderful friend, but when it actually came to it, she wasn't helpful. Her anger and mistrust really interfered with my birth. She has had

two bad experiences with labor and was scared - she had very strong opinions on how I should behave and that was oppressive... It has to come on your own terms... I wanted to go through everything, even if it took awhile. I am just that sort of person who likes to enjoy each step on the way. I hate rushing. I like to get into things. People need to be there for you and not be there for their own trip. It's not a time for listening to ideas. It is a time for being there fully with the experience."

The second example:

"When the midwife came to check me, I was 8 centimeters dilated. This was after 21 hours of gentle contractions. So we called everyone to come to the birth. I just sat there and talked and joked with everyone between the contractions. This went on for awhile and was real pleasant. Then my midwife said, this isn't getting anywhere - your water hasn't broken. We need to move things along. I didn't agree. She insisted that I at least walk up and down the stairs. I had really put myself in her hands and trusted her, but I really had wanted to be more in control of my process. I resented it later that they had taken control. Then I had to get into the shower. I didn't want to get into the shower. We've got a really rotten shower. Nothing did much good - nothing satisfied them. My friend said that every birth that she has been to the midwives have been like this. They chat about business and think of new things to do. I wanted them to shut up and be quiet and let me do my own thing. They finally said, nothing is happening. You have to push. I said that I don't feel any need to push. You will have to tell me how. They had me squat and push without noise. I was upset about it. I wanted to vocalize and push on the exhale. It was everything that I had read and didn't want to do... I lost the sense

of the baby. I thought that if I don't do what they say, they will take me to the hospital and cut me open. When they would check the heart beat, I was relieved not because the baby was alright - I knew the baby was alright, but because they wouldn't have to do anything else to me... They had me push the baby out on my side because I was swelling. I didn't want to be on my side because it looked so passive. Women seem so detached from it all on their sides. I felt real inward so I couldn't say anything at the time. I wanted to stay there deep inside my body in my part of the process so I didn't try to make much contact with anyone..."

The flavor of the birthing time phase as seen from each perspective highlights the satisfactions and dissatisfactions as new experience either matched or did not match the gravida's organizing perspective.

Summary

Pregnancy timed events are representations of biological, social or personal milestones achieved by the gravida during the course of her pregnancy. Achievement of these milestones signify movement through the period of waiting mandated by the natural course of the biological event. Women's interpretation of these events reflect her usual and customary approach to new and challenging situations. Some women are drawn to more technical explanation and manipulation of events while others are wedded to more naturalistic approaches that tend to minimize the need of technological intervention. Women over the age of 35 becoming mothers for the first time have acquired

years of experience in managing their lives. The period of pregnancy is initially interpreted as another situation where investigation of options, making educated decisions and securing appropriate support should insure the desired outcome. Each of the women participating in this investigation had specific understanding of age related risk factors, but how they chose to interpret that data and incorporate it into their personal orchestration of pregnancy is variable. As unpredictable events occur along the course of pregnancy and gain or loose stature in the hierarchy of competing demands, the gravida's strategic approach is either reinforced as being adequate and confidence building or is found to be lacking requiring readjustment of strategic actions.

CHAPTER 5

THE MATURE GRAVIDA'S ORCHESTRATION OF HER PREGNANCY FROM CONCEIVING TO BIRTHING

Introduction

This chapter will present the substantive theory of the mature gravida's orchestration of her pregnancy. When the mature gravida enters the pregnancy experience she brings patterns of behavior derived from her biological, social, and personal history. These patterns of behavior represent an organizing perspective from which the gravida will orchestrate actions that occur in anticipation of, and in reaction to, pregnancy-timed events and life's random occurrences. Three major organizing perspectives were identified (a) technical, (b) intermediary, (c) process. Pregnancy-timed events refer to the physically and socially constructed meaning of time during pregnancy where certain events act as pivotal experiences for the gravida. These identified time markers are (a) conceiving, (b) guarding, (c) embracing, (d) birthing. The particular signals that herald entrance into one time period and exit from another, the discreteness of the time periods, and the value accorded a specific time period vary according to the gravida's organizing perspective. When strategic actions taken by the gravida are in harmony with her organizing perspective and are appropriate to the changing demands of pregnancy, these new actions are incorporated into her repertoire and she

experiences a feeling of control and success in accomplishing the challenges presented by pregnancy. If situations are presented that are at variance with the gravida's perspective and usual strategic actions are insufficiently informative, the gravida senses a lack of situational control and must modify her perspective or continue to meet with frustration (Appendix E).

Women over the age of 35 come to the pregnancy experience with a history of managing difficult problems and of successfully negotiating personal needs and desires. Pregnancy, like other new events, places certain unique demands upon the woman. Each woman is aware to some extent that her age adds to her general level of pregnancy related risk. How a woman interprets the personal meaning of that risk is a reflection of her personal perspective as a social-biological being. Previous knowledge is probably insufficient to fully inform the gravida regarding choices to be made amongst somewhat alien or even mysterious medical options. Expanded strategies may be necessary to fully inform one's self in a comprehensive manner. Decisions based upon the information gathered must be made in a timely fashion. The blending of organizing perspectives, deciding, and informing processes into an action oriented plan comprise the strategy of orchestration. Orchestrating, as a strategy, implies an intent to direct action that is congruous with the organizing perspective of the gravida.

In response to the course of action taken (orchestration), a process of self-reflective evaluation occurs. The gravida assesses the success or lack of success of her informing, her deciding and her orchestration of events. Her analysis of the situation as it occurred, how it was managed by herself according to her own priorities, determines how positively she interprets her experience. If orchestration was in harmony with her organizing perspective and the desired outcomes were attained then she is likely to have felt successful in her endeavors, and future conditions presented by the on-going pregnancy experience will be met in a similar manner. If, on the other hand, she meets with frustration as her strategies are carried out, her self-reflective evaluation will leave her feeling unaccomplished and uncertain as she faces future pregnancy challenges. Feelings of frustration and lack of control over events induce the gravida to modify her strategies in an attempt to find agreement between her own perspective and the demands of the pregnancy situation. As such events are interpreted, acted upon, and evaluated by the individual woman, the consequential sense of confidence or lack of confidence is carried by the woman as a resource of previous experience upon which responses to future events will be based. While pregnancy related events as well as other life events occur and must be responded to as random occurrences, there are certain clusters of events that represent

strategic points along the pregnancy time line. These strategic points (conceiving, guarding, embracing and birthing) encompass biologically and socially designated clusters of events that culminate as a result of actions taken by the gravida and have unique significance to her as she begins to entertain her emerging role as mother.

How a woman comes to view herself as a mother grows out of her perspective of herself as a specific role player. These personal perspectives emerge from and are maintained by social interaction. Thus a woman acts from a personal perspective that is social in origin and consequently supplies conditions for her own actions (Blumer, 1969; Rose, 1980; Schatzman & Strauss, 1973).

A transformation of one's self view occurs as a new role is added to the individual's repertoire of collected roles or self conception. In preparation for a new role a woman maintains a type of symbolic rehearsal of the demands and conditions anticipated as part of the future role. Previous roles are adjusted to make room for the new. The relative position of previously held roles on the hierarchy of meaning or value, shifts within the individual as the newer more pressing role of mother emerges as a dominant feature in a woman's self conception (Rose, 1980; Rubin, 1984).

The interactionist perspective stresses that meaning is ascribed to a given situation through the use of symbols

that have shared value, and that human beings interpret or define each other's actions (including their own) instead of merely reacting to actions. That is, a response is not made directly to the actions of the others, but rather it is based upon the meaning which individuals attach to such actions. This infers that a process of interpretation is located between the stimulus of an event and the response to that event (Blumer, 1969). Since a woman is able to be an object of her own actions she is able to act toward her self and her body as she acts toward others. She has a perspective of her personal self, her body or biological being, and her social self or her interaction with outside others. In this way the gravida is reacting, interpreting, and responding to three sources of stimulation from a given situation: herself, others, and her body. Each source of stimulation is in dynamic relationship with the others as events are interpreted and meanings are assigned according to priority from the woman's perspective.

Strategies represent the processes through which certain actions are accomplished. These processes are mediated by external, internal and individual influences that begin to address the questions of: who, what, when, where, how and how much. As these actions are experienced the woman begins to interpret and evaluate these events. As a result her perspective and her skill in arranging appropriate actions is either affirmed or denied. If her

perspective and actions are affirmed she feels accomplished, in control, and pleased with her skills in encountering these new conditions presented by pregnancy. If she feels that her perspective is denied and her actions have fallen short of her expectations then she feels unaccomplished, angry, out of control, and must either reorient her personal perspective or readjust her strategic actions to provide an improved match between competing conditions. This evaluation is summarily placed in the woman's resource of accumulated past history and will serve as a basis for future actions.

Major Strategies: Orchestration, Informing, Deciding

The strategies employed by women as they seek to bring the unfamiliar events of pregnancy and first childbirth into their customary approach to other complex problems are described as interactive. They are perspective informing. Interaction implies both the reception of and reaction to information presented by others including one's self. A specific situation occurs that serves to act as a stimulus that call out a response from the woman. If the situation is familiar then an almost habitual response is given without much deliberation. This response has already been tested in previous situations and evokes comfortable interactions from a host of others. In situations where there is less familiarity, new responses are required. To formulate new responses previously developed skills are

used. To the extent that the usual familiar strategies produce a response suitable to the new event and continue to validate the woman's view of herself, the more affirming and confidence building and perspective affirming a particular interaction becomes. Similarly, if a situation evokes a response and the strategic action is met with negativity or adversity, confidence is lost and the situation may be summarized as perspective denying.

Principal strategies employed by mature gravaidae as a continuum of action are: informing, deciding, and orchestrating. Each of these strategies have sub-categories of action or direction of effort that will be addressed in detail as independent behaviors. In reality, probably the three key components operate simultaneously and are in dynamic relationship with one another. A linear relationship is not implied by this model.

Orchestration

Orchestration is a major process that involves keeping the social and personal requirements presented by pregnancy appropriately situated on the pregnancy time line: the scheduling of events, the hiring and firing of personnel, public relations work with family, friends, co-workers and others. The process of orchestrating is an extension of the processes of informing and deciding around an anticipated pregnancy related event, an unanticipated pregnancy related

event, or other intervening variable presented by her on-going life.

A woman's perspective during pregnancy is part of the natural spectrum of how she normally approaches life's challenges. Past experiences including personal, social, and biological are accumulated and interpreted by women as adding strength to or revising their point of view. From a theoretical vantage point it is important to understand that a woman's perspective, technical, intermediary or process, is independent of how she may be viewed by others, particularly by her health care providers.

The processes of informing and decision making will be discussed in the next sections. Following discussion of the two sub-processes an illustration of orchestration, informing, and deciding according to the gravida's organizing perspective will be presented.

Informing

Informing encompasses both the act of seeking out of knowledge and the act of dispersal of knowledge to others. Functioning from her personal perspective, a woman will begin to gather information and advice from a variety of sources. The need to inform one's self is partially explained by the confrontation of new experiences and by the symbolic rehearsal of an emerging new role. Knowledge suitable to the gravida's situation is solicited from formal sources (health care providers, books, classes), informal

sources (family, friends, mass media), and sundry sources (a distinctive group comprised solely of other women who have borne children).

How a particular woman shares this information gathering process with her partner varies considerably and is dependent upon how fully informed she expects her partner to be and how independent she elects to be in the decision making process. While women may enter the pregnancy process believing that it is a shared event, many women report realizing early on that it is only herself who is pregnant. Interactions with a wide field of others supply increasing amounts of data for the woman to process, distribute, act upon, and finally react toward. As pregnancy progresses and more experience has been gained, knowledge gathering becomes more selective. Those with whom the gravida chooses to interact for comfort and validation are limited by her organizing perspective. Value placed on knowledge from high priority sources and responses from those most intimate with the gravida are seriously entertained. But, it is only she who is pregnant, and it is her own evaluation of how well her actions brought her through a challenge period that ultimately distinguishes her experience.

Informing: Formal Knowledge

Formal sources of knowledge are defined as those sources organized for the specific purpose of providing a specific body of knowledge related to childbearing to the

woman. Most frequently health care providers, childbirth books and publications, and formal class room presentations are included within this definition. The process of knowledge gathering from formal knowledge sources will be illustrated from the organizing perspective by examples from interview data.

Formal Knowledge Gathering and Dispensing: Technical Perspective.

"I'll have to say that the man that I worked with (physician) was good. My husband didn't like him, but I don't care about that. He (the physician) was so highly theoretical and technical... When I had a question I would simply do a review of the literature on the subject then we would talk... Childbirth classes? Oh hell, I didn't do those things. They're filled with trivial stuff on how to breathe. I certainly don't need classes to teach me that."

Formal Knowledge Gathering and Dispensing: Intermediary Perspective.

"I know a lot about how to get information. That's part of my job. I just found that I had a wider choice of where to look for answers. There is lots of information out there. I go straight to those books in the check out line at the grocery store... I have an established relationship with my physician and I really appreciate his advice. I ask questions and he answers me. I am really glad that I live in an era of medical care where such discussions are possible... Lamaze classes were immensely important for information that wasn't covered in the doctor's office. There are important things that you need to know about what to expect..."

Formal Knowledge Gathering and Dispensing: Process

Perspective.

"On some level I guess that I thought that I was suppose to have been taken care of by my provider. It occurred to me early on that I need to take care of myself, but I did think that my midwife was the one with the greatest information...I read, but not a lot about birth per se. Reading those things tends to focus me on the things that I didn't want to give energy to. So, I have to be careful about what I read... I love our childbirth classes... I like to hear about other families and their growth. It's like being on an unbelievable journey..."

Informing: Informal knowledge

Family, friends, co-workers, casual acquaintances, and mass media are considered informal sources of knowledge. Although many family members may act as a valuable resource to the gravida, of special significance is the woman's partner and her own mother. Friends as an information resource have wide variation in meaning and importance depending upon gender and whether or not they have children.

Social contacts in the work place may provide some limited support as do a wide variety of others not ordinarily considered amongst the woman's intimates. Of particular importance is the information resource that other women who have borne children offer to the gravida. This sharing based upon real experience has an almost universal appeal that provides a source of strength and solace in addition to merely factual or anecdotal vignettes. Included

with in this aspect of knowledge gathering is the real life experience of pregnancy to the gravida herself. This special knowledge is set aside as a unique category of informing referred to as sundry knowledge.

Illustrations of the various forms of informal knowledge gathering and dispensing will be taken from data representing technical, intermediary, and process perspectives.

Informal Knowledge Gathering and Dispensing: Technical Perspective.

"All my support continues to come from friends and colleagues. I really think that my experience was different only to the extent that I needed more intervention... My husband knows very little about what to say or do - except for what I tell him about it. He doesn't try to influence me one way or the other, and that is a good thing..."

Informal Knowledge Gathering and Dispensing: Intermediary Perspective.

"My husband helped me to learn mind control techniques. He just told me what to do... I also had the benefit of going through pregnancy after two of my friends so they could tell me all about everything - what to expect and all. Knowing that they were there was very important to me..."

" I never paid much attention to pregnant women. Once you become obviously pregnant then people are interested in sharing with you in surprising ways... Most surprising is how people, men and women, share themselves. I mean they give you gifts. Some gifts are stories; others are things for the baby. This warmth and generosity told me something that I hadn't anticipated - that this baby is a gift to the community... Early on there

was so much that I wanted to know, but I avoided talking to friends or going to the early bird classes or reading too much because I didn't want to acknowledge that I was pregnant (until genetic test results were back)..."

Informal Knowledge Gathering and Dispensing: Process

Perspective.

"I enjoy reading, but mostly poetry or something to help me focus on what is happening... Children. I learn a lot from children. At school they come up every day and touch me and talk about being a baby. Children rise to the occasion in a very pure way... I am more receptive to their energy and they relax with me and tell me all about it... In December we went on this retreat and our teacher talked to us in an informal way about being pregnant. He told my husband and I to touch and talk to the baby every day. It made all the difference- very simple, but totally sufficient..."

"I loved the newspaper stories about us older moms. It was so reassuring to know that things can and do go well. I knew it all the time, but I just loved reading it. I have always trusted myself and have paid close attention to what my body was telling me. But reading it in the newspaper - wow. It also let me know what I didn't want to get involved with. There are a lot of dangerous ideas catching on out there. It is my usual way to flood myself with information of all kinds. I love to digest it all and then choose my direction and follow my path. I guess that I am afraid of being under informed. Also, pregnancy is one of those things that you do by yourself. I mean that I am surrounded by lots of people, but it is all for me to choose the path- then I'll decide who or what to include and how to do that..."

Informing: Sundry Knowledge

Sundry knowledge is a unique category of wisdom discovered by analysis of data from this investigation.

Sundry knowledge is shared by women who have borne children with women who are now pregnant or have borne children. Women in this investigation sought out sources of sundry knowledge as they became hungry for the type of information that couldn't be located in textbooks, medical offices, or from male companions. Sundry knowledge is highly informal and anecdotal. This type of information has an almost folk-lore quality to it. These are the secrets that women share with one another about what it means to bear a child.

Sundry Knowledge Gathering and Dispensing: Technical Perspective.

"The most important information comes from women. A woman who has been there. As it was I relied upon my friends. So all my emotional support, including now, has come from my friends. There is a real synchrony between women. It is immediate - woman to woman, very important and very potent. I am saying this as a straight, married, middle aged woman. Men have limited value in reproduction. Women give a special look, a touch, a feeling. Women who work with babies - they bring you to your senses. I know it sounds sexist, but women just don't do as well with men (talking about pregnancy)... This has nothing to do with 'spiritual midwifery' or the grooviness of having babies. It has to do with women who are well informed, who are professional, and who know the score..."

"You can ask women who have been pregnant in the past. There is nothing to discuss with somebody who hasn't been pregnant. There is nothing that they can say, and it isn't something that you can discuss over coffee at work. There is no time to confer on a woman to woman basis. You better just forget it and

pretend that you are a man. I don't have time to be friends with all these pregnant women - and there is a crop of them coming up - but I do tend to seek them out on some level. We never would have made contact before. It's a closed group, kind of informal, but you do have to be a pregnant woman to join. You don't discuss pregnancy issues when you are not pregnant. I guess that is part of it; it doesn't mean the same to you..."

Sundry Knowledge Gathering and Dispensing:

Intermediary Perspective.

"Women do tend to go into depth in discussing their pregnancies. In fact with one of my friends, it has brought us much closer together... She told me about her labor and what to do to make me feel better when my back is killing me... I pay attention to what my body says too..."

Sundry Knowledge Gathering and Dispensing: Process

Perspective.

"I have one woman friend. She's been my number one mentor. With other women I simply pick up on their fear or mistrust of their own bodies and self. They are so different than me in their approach being so caught up in this external world..."

Deciding

As a strategy deciding, or decision making, involves the individual, couple, and significant others. Deciding is stimulated by personal, biological and social factors and has direct consequences for both partners, the fetus, and the emerging family. As an almost routine part of daily living certain decisions must be made. During pregnancy certain of these decisions take on new significance and

value. Across the time span of pregnancy certain clusters of decision making activity occur. These points in time (conceiving, guarding, embracing, and birthing) may be considered strategic points as decisions that are made have lasting influence upon the course of the pregnancy, the life of the child, the experience of the mother and the dynamics of the emerging family.

Deciding amongst a wide array of options seeks to direct attention and action toward answering the questions: who, what, when, where, how, and how much. Both pregnancy-timed events and the woman's organizing perspective are related to the decision making process. The following examples from data will be arranged by perspective according to the pregnancy-timed events of conceiving and guarding.

Deciding and Conceiving: Technical Perspective.

"I kept looking for Prince Charming. One of the conditions was that he would be willing to have children. I wanted them. I wasn't into waiting after we got married. Everything was in order. Now was the time."

Deciding and Conceiving: Intermediary Perspective.

"We thought about having kids for a long time, but other things have been more important or pressing at the time. After we got married we got into the jobs that we wanted and traveled around. We didn't want to be tied down with kids. Then I made this decision to do this degree...I decided that I would do the degree first and the child second... I took this course - this guy who was an infertility expert was in it. He gave his presentation and it panicked me. I had just turned 36, and I thought-oh, my gosh! I don't want all those things happening to me. So I came

home and told my husband - this is it. So we started trying to become pregnant a little earlier than I had originally planned, but..."

"...our decision initially was not to have children. We have been married 18 years this fall, but slowly our friends began to have children... With this exposure we realized that maybe we weren't as opposed as we originally thought. We were also beginning to feel a little more mortal - that maybe there was more to life... So we finally decided about two and a half years ago to try to conceive. I wanted to try a little earlier, but he was convinced that as soon as we would have intentional intercourse, we would conceive... Lo and behold once we made the decision, and much to his surprise, we didn't get pregnant right away..."

Deciding and Conceiving: Process Perspective.

"Well, first of all this pregnancy wasn't planned. We hadn't decided to get pregnant. But when it happened it seemed the most perfect thing after having been on a three month retreat to try to get a bit more clear about our, I mean my - direction... It sounds a bit off the wall, but I felt like an open vessel as though before there were all sorts of strands pulling at me not to conceive. The fertility was achieved by sort of clearing my system and being away from the scrambles of everyday life... I - we always knew there would be children in our relationship..."

Deciding and Guarding: Technical Perspective.

"I had to talk to someone so I talked mostly with strangers about the choices to be made. One of the hardest was telling them at work that I was pregnant. I had to do it because I was getting an assignment that would have had me traveling when I was giving birth. I was so conflicted though because I didn't have the amnio results yet and I wasn't going to keep the pregnancy if it was abnormal. I was real angry at having to make those choices, but I am very technically oriented. It was almost like it was someone else doing all of that for me and all I had to do was keep quiet. Now I feel like there is no way that I would kill my baby, yet I would have if there had been a problem. This is awful, trying to protect yourself and the baby, yet not connecting with it

because it might all end. I think that it was good to feel distanced from that because you have decisions to make and as you get to month six, seven, nine it would have been worse..I didn't want to feel him move until I knew he was alright. That fear kept me right on time with those decisions..."

Deciding and Guarding: Intermediary Perspective.

"I really didn't feel very good. I was quite nauseated and fatigued. It was real difficult because I had so much work to do at that time. I had really decided to focus my energy there (at work) and get a lot accomplished. I really didn't want to think about the pregnancy as a reality too much because we had decided that if there was a problem we would terminate the pregnancy. We made that clear to our families and friends. It really helped to have their support for our decision... I trusted that they would locate the fetus properly and not hurt him (at amniocentesis). That's why I wanted the late procedure. I wanted all the information in one test with the lowest chance of hurting him or me..."

Deciding and Guarding: Process Perspective.

"I couldn't really accept being pregnant. I felt great - no bleeding or problems. It took about three months for it to become real to me - when I actually started to get a little bigger. It took me a long time to show. I think that is what it was. Then the baby moved and that was it! There was nothing more that I needed. If I'd had all those tests all it would mean is more money. The outcome would be the same. I can't change it. So, I am letting go and we will see how it turns out... My feet simply wouldn't take me there for testing and certainly not for an abortion. Not that there is anything innately wrong with abortion. I just know that it is inappropriate for me. If I have a baby with Down's or any other baby, I can't say just get rid of it. I just can't do it. I figured that - knowing that, I'll just go ahead and have a baby. What ever happens-happens... My husband and I - we have agreed on this"

Orchestration: Informing and Deciding in Harmony with
Organizing Perspectives

Orchestration and Technical Perspective

Women who are of a technical perspective view their pregnancies as requiring access to sophisticated hospital based care. If they have not already established a relationship with a health care provider by the time of conception, they will begin to seek one out. Extensive interviewing of possible candidates is undertaken. The woman's partner may or may not be involved in the early scheduled events of pregnancy, such as the interviewing of physicians, but he is usually highly involved by the time genetic testing is performed. Considerable emphasis is placed upon the timing of events in relationship to the duration of pregnancy and other on-going life circumstances.

Career obligations, social contacts, spousal relationships are balanced against the calendar time of pregnancy with a high degree of planning. Unscheduled events are of low priority unless they represent a major threat to the woman herself or the fetus. Considerable attention is given to trying to orchestrate these unscheduled events into the sequence of her ongoing life. The punctual orderliness of the gravida's orchestration of events is dependent upon her obtaining adequate information on which to base decisions. Having made certain decisions; then the selection of appropriate settings, personnel, and technology become

critical factors. The persons with whom she surrounds herself, the informational sources, and her style of incorporating the possible child into her life plan will all be approached in a manner that resembles her normal perspective on confronting new tasks.

Since the future of the pregnancy for these women greatly depends upon the accuracy of interpretation of laboratory testing, the receipt of test results signifies a critical juncture where additional information, decisions and actions are required. It is often the case that along with confirmation of genetic good health comes information regarding the baby's gender. At this point the gravida feels free to announce the pregnancy to others along with gender information, and frequently, the baby's name.

Upon learning the gender women have stated, "...it was as though a switch were thrown...", and they could begin to relate directly to their baby. This embracing of the pregnancy is approached in the same efficient manner as other events. Knowing the gender of their infant is beneficial to women in the specific expression of getting to know this particular baby. Many of these women anticipated returning to work within four to six weeks following childbirth. They stated that knowing who their baby was prior to birth helped them with the identification process, accelerated bonding, and would ultimately make it easier to return to work following childbirth.

Group child birth classes are not openly welcomed by this group of women. They have commented that such classes were "...trivial, boring, touchy-feely...". Specific reading and an ongoing relationship with her physician continues to be a dominant feature of the experience. Childbirth itself is anticipated as a time fraught with the possibility of danger for self and fetus. A closely monitored experience is sought. Analgesia and anesthesia are considered appropriate for labor, and operative birth is also viewed as an important option.

Orchestration and Technical Perspective: Deciding and Informing.

"It's a job. One's experience is altered by what you must do to have a baby. It takes time to acquire all the possible disease processes connected with aging and furthermore you have spent your entire reproductive energy to this point not reproducing. You need to take it even further and look at it in terms of the whole package, what you want, and when you want it. You have to chart it out so that you can get things done at the same time that you are going to have a baby. That's the first thing - thinking about how you are going to fit the whole thing together..."

(Talking about classes for pregnant women) "The literature shows that it takes about six to eight sessions to really form a well working group. It has something to do with small group dynamics. It takes some time for people to get to know one another. I couldn't figure how else to do it because I thought that ultimately we would benefit from being with other people. It is simply a lot of time to spend on gaining suggestions on how to prepare for the task ahead, but I made sure that we did allow that time. You must sign up some months in advance..."

Orchestration and Intermediary Perspective

Women of an intermediary perspective view their pregnancies as requiring some access to sophisticated intervention, primarily prenatal genetic testing (n=10 with testing; n=2 without testing). The orchestration of pregnancy events for women of an intermediary perspective encompassed a wide variety of considerations and, because of this variety, represents a greater flexibility in approach than either the woman of a technical or a process perspective.

The selection of a health care provider is an example of the range of requirements presented by this group. Personnel including perinatologists, obstetricians, family practice physicians, and nurse midwives are considered as suitable providers. The gravida's emphasis of concern centralizes upon issues of choice. That is, how much participation will the gravida be offered in regard to certain decisions to be made; will I have an episiotomy, will my midwife do hospital deliveries, what classes are suggested?

Partners are included with many of the major decisions and there is an underlying assumption that this grows from an egalitarian approach to the couple's relationship work. As with the technical perspective woman, career obligations are prominent in the intermediary gravida's orchestration plan. Career focus is often so central that extended work

hours are frequently undertaken in an effort to store up hours or complete projects ahead of schedule so that future requests for time off will be honored.

The pregnancy-timed event of guarding is defined by prenatal diagnostic testing to the extent that it is seen as a critical condition to the continuation of the pregnancy. For women of this perspective testing information represents only a partial answer to questions posed by the tentative nature of early pregnancy. Bodily signals are also interpreted as comforting or reassuring to the woman.

The time phase of embracing of the pregnancy follows receipt of satisfactory test results and interpretation of bodily signs. As well as a change in focus on the concerns of pregnancy, such as a change of attention to begin preparation for birth., this period of embracing involves announcing the fact of pregnancy and perhaps also the gender of the infant to others. Childbirth classes, reading, talking with other women, exercising and other activities serving to focus upon the upcoming birth become the primary focus. While most women of an intermediary perspective feel most comfortable giving birth in a hospital (n=10) setting there is considerable variation in the degree of monitoring and intervention deemed sufficient to promote a sense of safety for self and infant. Partner participation is strongly encouraged and desired by these women.

The goal for childbirth may be as little intervention as possible, yet these women are not opposed to technological intervention should the need arise. Women of an intermediary perspective have the widest range of options acceptable and therefore available to them in their orchestration process. Because of this they have an increased opportunity to find both their pregnancy and child birth experience satisfactory. The majority of gravidae in this investigation are represented in this category.

Orchestration and Intermediary Perspective:

Information Dispensing.

"I wanted him to sit down and read with me specific chapters because he would be interacting with me in labor. I wanted both of us doing this together. We hadn't done anything up to this time, and in fact, I felt like he had been avoiding the whole thing. He was getting more and more involved with his stereo equipment. I'd be sitting there reading these damn birthing books... He wasn't quite ready for it...Anyway after some not so subtle stuff on my part, he did sit down with me. We did this for about a week. We read the books together. Even though I had read it over myself, I needed to have him read it to me. In that way I knew that I knew he knew what to do..."

Orchestration and Process Perspective

While pregnancy may be actively sought, it is also viewed as a facet of life that is not necessarily open to scheduling. A sense of readiness or acceptability of the pregnancy is supported by where the gravida feels that she is in relationship to her assessment of life time goals. Her relationship with her partner, her own education and

work career, interact with an expressed desire to experience pregnancy as a life process. Women of a process perspective are less likely to have an established relationship with a traditional health care provider than women of other perspectives. Some women of this perspective voiced the impression that it might be necessary to have a skilled attendant at the birth, but otherwise they felt little need for outside assistance. Each understood the implications of being over age 35 with regard to genetic disorders and certain maternal risks, but each felt that it would be of little value to invest in testing when test results would have little bearing on the outcome of the pregnancy. Orchestrating pregnancy-timed events for women of the process perspective focused upon securing health care that would protect them from the threat of unwanted medical intervention, and in rallying support from partner and friends to endorse her intentions.

Process perspective women in this investigation sought their health care exclusively from nurse midwives with home delivery practices. The pregnancy time line for these gravidae was described as more flowing or continuous than for women of technical or intermediary perspectives. Women with a process perspective announced their pregnancies soon after they knew that they were pregnant. They fantasized about the baby's gender and whether or not the baby was alright. They felt deeply attached to their babies very

early in the pregnancy process. Although a period of guarding prevailed until the women felt sure that the pregnancy would be successfully carried to term, embracing was woven into the early guarding period.

Sufficient reassurance that the pregnancy would succeed came primarily from the woman's own interpretation of bodily changes or sensations. For some it was fetal movement. For others it was the enlarging belly.

As the period of guarding faded, the sense of embracing became more prominent and anticipatory planning for the birth was undertaken. Process perspective women stopped their work careers early (1 to 3 months) to devote their entire attention to birth preparation. Meditation, yoga, and other focusing techniques were stressed as being central to their experience. Sources of information included midwives, spiritual advisors, books stressing a more natural (as opposed to technological) explanation of birth and family process. Women of this perspective express that they are ultimately the one responsible for giving birth and will do all that is within their power to remain free of technological intervention.

Orchestration and Process Perspective: Informing.

"I had decided upon having a home birth. I see birth as an empowering process and I wanted him to understand. We had been going to child birth classes, but my husband was really frightened by what might happen. I need his support so I began to organize ways that I could teach him to believe in me and in the process that we were part of. He has to be on my side. It's a little like an

engineering project. First we talk about it. Then I have planned some smaller childbirth education sessions to decrease the distance he feels from the process. We are also going to spend some time talking with the experts (the midwives) about what to do in an emergency. I haven't figured out how to get him to talk to other men about it, but I will because I think that part is really missing. Also, he is coming to the appointments now..."

Summary of Major Strategies:

Orchestration, Informing, Deciding

Orchestration represents a major strategy employed by mature gravidae as they endeavor to achieve harmony amongst competing concerns from social, personal, and biological sources. Orchestration literally means to integrate, harmonize, blend or synthesize. Orchestration represents a directed action taken by the gravida as she reacts to and anticipates intervening variables, her on-going life, and pregnancy-timed events. Her organizing perspective will guide and influence her decision making and information gathering actions and will contribute to how a particular woman orchestrates these competing demands. Additional strategies of informing and deciding are employed by mature gravidae as they attempt to incorporate the events of pregnancy, familiar and unfamiliar, and events of on-going life into their organizing perspective.

Interactive strategies of informing, deciding, and orchestrating were employed by women as they sought to bring the unfamiliar events of pregnancy and first childbirth into the familiar pattern of their ongoing life. For the mature

gravida, a history of confronting and addressing personal issues regarded as problematic has fortified a pattern of perceiving new and challenging developments. These patterns are designated as technical perspective, intermediary perspective, or process perspective. While none of the perspectives are pure, that is, within each major perspective held by an individual woman there are glimmers of the other points of view. The perspective represents the major analytic trend of the gravida as she synthesizes her experience. Perspectives organize or guide the strategies employed by the woman's preference for sources and types of information, decisions and orchestration of pregnancy plans.

While women from each of the perspectives may use the same combination of strategies for planning pregnancy-timed events, the emphasis varies widely. These strategies are called upon when conditions arise from social, personal or biological sources and demand a response that requires the gravida to weigh and select amongst options that will harmonize with how she views herself.

Strategic actions are stimulated in reaction and in anticipation of specific events both scheduled and unscheduled. The degree to which the interactive strategies correspond with the gravida's perspective indicate consequences of her self-evaluation. These consequences further serve to validate her perspective and management style yielding a sense of competency and control, or her

perspective and management style will be negated and she will be stimulated to modify her perspective or alter the emphasis of her interactive strategies. The consequences of perspective denial are manifested in expressions of lack of confidence and loss of control. Further discussion of the consequences of a mature gravida's orchestration of pregnancy events is presented in the ensuing section.

Consequences: Results of the Mature Gravida's
Self-Reflective Evaluation

As the events of pregnancy unfold and the gravida both anticipates and responds to situations posed by pregnancy and first birth after the age of 35, a type of self-analysis proceeds. Orchestration strategies are compared with expectations arising from the woman and from previous experience is measured against what is actually occurring. How she interprets the meaning or significance of her orchestration strategy as compared to the reality of her pregnancy experiences serves to augment or weaken her sense of confidence in managing pregnancy-timed events and sets the stage for orchestration of future events. Discussion of the consequences of the self-evaluation process are discussed below as: (a) perspective affirming, (b) perspective denying, (c) perspective modifying. Each set of consequences are illustrated with examples from data representing technical, intermediary, and process perspectives.

Consequences: Perspective Affirming

If assessment by the gravida of the effectiveness of her orchestration of interactive strategy yields a sense of satisfaction or success; then the gravida understands her perspective to be affirmed. She feels positive and confident in her ability to continue to deal with the new opportunities offered by the pregnancy experience. She is reassured in her abilities, and she has a sense of control over certain pregnancy-timed events. The manner by which success was achieved is incorporated into the woman's reservoir of past experience and will serve as data to support future events requiring similar problem solving or organizing approaches. Examples of each perspective with a perspective affirming situation will be drawn for the data.

Perspective Affirming: Technical Perspective-Evaluation of Childbirth Experience

The example given below was drawn from an interview at 4 weeks postpartum. The respondent had a vaginal delivery with extensive maternal, fetal monitoring and epidural anesthesia.

"I feel very grateful to have had everything available to me. I know that in previous years women didn't have these opportunities and they weren't as lucky as me. I would never take any chances on risking not having access to modern medicine. Like I say, it is a miracle and I wouldn't do it any other way..."

Perspective Affirming: Intermediary Perspective-Evaluation
of Childbirth Experience

The following are data from an interview at 4 weeks post partum. The gravida represented by this data had a vaginal delivery in an alternative birth center attended by a nurse-midwife. Intermittent fetal monitoring was the primary technology employed during labor and birth.

"Well, I think that I felt confident enough with the control and information that I was able to let the process occur. So, I think that it is a combination of both control and information, and I was very much in control. I felt that I had a lot of say over what or who I had with me, and a good amount of practical information that allowed me to relax and just live through it. That's the way that I work things - to have things under control or in control and my hands on them enough to be able to let go...and live through it... It was really worth waiting for."

Perspective Affirming: Process Perspective- Evaluation of
Childbirth Experience

The following example is from data collected at a postpartum interview two weeks after delivery. The gravida represented by this quotation had a home birth with a nurse-midwife in attendance.

"I figured that women do this all the time. Now I am one of them and I love it. It is important to believe that you can do it. It is do-able. The pain is for a reason. Control is the wrong word - it isn't being in control. It's different. Maybe it's being informed. But then I would color everything to match my wishes. You know what ever I read I made it seem like it was in support of home birth. It is self believing - I mean really self-believing..."

Consequences: Perspective Denying

When assessment of strategic action falls short of the gravida's expectations, a sense of failure or a lack of confidence is expressed. Often women will convey worry over future choices, an unworthiness or sense of distrust in her ability to make correct choices in pregnancy-timed events. This critical evaluation is stored as a resource for future action. Additionally, this evaluation may stimulate a reformulation of the gravida's strategic planning or serve to modify her perspective. Often the gravida may express anger or frustration as she encounters the necessity to shift or surrender to a less familiar pattern of orchestrating events.

Perspective Denying: Technical Perspective - Evaluation of Childbirth Experience

The following example is from data collected four weeks postpartum following a cesarean section. Surgical birth was performed after a 36 hour induction of labor for moderate to severe preeclampsia.

"My blood pressure was off the charts so they told me to come on in. They started magnesium sulfate to prevent convulsions. I was contracting on my own every minute and a half, but they added some pitocin later because the magnesium relaxed me too much, I guess. All day long I had contractions. I made no progress at all. I was hooked to all kinds of machines, but I got more and more worried about them not moving more quickly to take the baby. The baby is fine and all, but I really think that more should have been done earlier. They didn't force the c-section on me at all - it was in the middle of the night for God's sake, but I am still concerned that they didn't respond

quickly enough. I am not at all opposed to cesarean birth. I was relieved that it was available. Next time I'll look for another physician who'll be more thorough..."

Perspective Denying: Intermediary Perspective - Evaluation of Childbirth Experience

The example drawn from data collected three weeks postpartum is from a gravida who had an unanticipated cesarean section.

"Previously I had thought, what is the big deal. It doesn't take a college degree to breast feed a baby. It is natural. But, I know about natural now. Rooming in was out of the question. I was glad because I now think that the nursery is the best place for babies. They brought him to me in the middle of the night. I couldn't move. It was real scary and precarious. I had to somehow deal with this baby. It was scary. They sent me home on the second day. I was still having pain and I didn't want to take the medicine. I felt like crying..."

Perspective Denying: Process Perspective - Evaluation of Childbirth Experience

Data from a postpartum interview conducted at four weeks following a home birth attended by a nurse-midwife.

"I think that I am making my peace with it now, but I was thinking that these women (the midwives) are so tired, they want me to get this done so they can go home and go to bed. If I got to 8 centimeters with it being gentle and bearable, why did it have to be like that? Why did we have to rush it? I am disappointed that my body never got the chance to lead me. I didn't get the chance to trust my body. I was manipulated. I was made to push. I never had the urge to push. I think that is why I am swollen- because my body wasn't ready. There is always some kind of intervention- that's artificial- anything that you do to speed up labor. It was better than having an episiotomy, or a cesarean section but it was very heavily intervened with.

I never will know what would have happened if we had just allowed it to take it's course. I am very disappointed..."

Consequences: Perspective Modifying

A single example of a perspective modifying event will be presented with data from a gravida whose dissatisfaction with her orchestration of pregnancy events lead her to modify her perspective. When the respondent discovered that she was pregnant she sought prenatal care from a physician. She made her early decisions based on information that she had gained from recommendations of others. Her experience with the physician and with genetic prenatal diagnosis was sufficiently unsatisfactory to promote an evaluation that lead to modification of her perspective..

"I found that I gravitated to women who had home births. I needed that support to help me believe in myself. I had started off in a more technological way out of ignorance and without thinking. I had prenatal diagnostic testing. As I went through the procedure, I thought, what am I doing to my self and my baby? This is crazy! That's when I focused on what I really wanted and went looking for a midwife. She gave me the facts about being older - what might go wrong, what I could expect, and I thought, this is it. It fits. I can do it, and I will do it..."

Summary of Consequences: Results of the Mature Gravida's

Self-Reflective Evaluation

As experiences are processed by the gravida and new situations are encountered or anticipated she draws upon knowledge that includes her preferences and previous orchestration of events. A history of successful

orchestration provides the gravida with a sense of confidence and competency. Whereas, a history of unsuccessful orchestration builds within the gravida feelings of resentment, lack of confidence and concern over facing new challenges. If incongruous orchestration is recognized and is available to change, then a more appropriate orchestration strategy may be employed.

Summary

Guided by her own perspective the gravida gathers information, makes decisions, and sets forth on a plan for her pregnancy that reflects her past experience and style of managing and confronting new challenges. The persons she surrounds herself with will be those who validate her approach. She will seek health care providers and casual acquaintances that affirm her understanding of what is acceptable. Her partner, if not in agreement, will be additionally coached to achieve harmony in important decisions regarding pregnancy events.

At each of the strategic points of the pregnancy course certain opportunities arise that give opportunity for additional information seeking, decision making and further planning. As these events occur, or are anticipated, the gravida reflects back upon her course and evaluates the success of her plan. If all has gone well, she feels confident and continues with her approach. If she feels less successful in having met the challenges of pregnancy,

she has opportunity to modify her plan to synchronize with her perspective or to augment her strategic processes. In addition to pregnancy-timed events the gravida must respond to intervening variables (randomly occurring life events that are social, biological and personal in nature) and to the needs of her on-going life. It is the act of responding to this host of demands from multiple sources and blending them into a plan that is harmonious with the gravida's perspective that comprises the process of orchestration.

CHAPTER 6

CONCLUSIONS

The purpose of this chapter is to: (a) briefly summarize the substantive theory developed in the study, (b) describe the relationship between the theory and the existing literature, (c) discuss the limitations of the findings, and (d) discuss the implications for practice and research.

Summary of Findings

The substantive theory of the mature gravida's orchestration of pregnancy-timed events is supported by the findings that women over the age of 35 becoming mothers for the first time relate their pregnancy and childbirth encounters with great variety in experience and with great diversity of opinion. In spite of controversy over innate risks associated with the aging process in general and information regarding increased risk of giving birth to a genetically abnormal infant, women have their own impressions of how this information applies to their specific circumstances. Guided by her own perspective the gravida orchestrates the predictable and reacts to the unpredictable experiences of pregnancy by gathering information, making decisions and setting forth on a plan for pregnancy that closely reflects her past history and resembles her usual style of managing and confronting new challenges.

When the mature gravida enters the pregnancy experience she brings patterns of behavior derived from her biological, social, and personal history. These patterns of behavior represent an organizing perspective from which the gravida will orchestrate actions that occur in anticipation of, and in reaction to, pregnancy-timed events and life's random occurrences.

Three major organizing perspectives were identified (a) technical, (b) intermediary, (c) process. Pregnancy-timed events refer to the physically and socially constructed meaning of time during pregnancy where certain events act as pivotal experiences for the gravida. These identified time markers are (a) conceiving, (b) guarding, (c) embracing, (d) birthing. The particular signals that herald entrance into one time period and exit from another, the discreteness of the time periods, and the value accorded a specific time period vary according to the gravida's organizing perspective.

When strategic actions taken by the gravida are in harmony with her organizing perspective and are appropriate to the changing demands of pregnancy, these new actions are incorporated into her repertoire and she experiences a feeling of control and success in accomplishing the challenges presented by pregnancy. If situations are presented that are at variance with the gravida's perspective and usual strategic actions are insufficiently

informative, the gravida senses a lack of situational control and must modify her perspective or continue to meet with frustration (Appendix F).

Persistent effort was made to integrate the pregnancy experience with the impending role of mother into her rich and busy life. For women over the age of 35, becoming mothers for the first time the time of pregnancy is filled with pragmatic issues of balancing, managing and weaving another role into a full and accomplished life. Motherliness or feelings toward the developing child were addressed with concern and care as options were selected and choices made, but these feelings were not the central focus of the experiences of these women. Their central focus was responding to the host of demands presented by their on-going lives, blending the demands into action oriented plans which were both harmonious with their organizing perspective and fitting with circumstances presented at random. These activities embodied the process of the mature gravida's orchestration of pregnancy events. These theoretical findings will be discussed in relationship to the existing literature in the following section.

Relationship of Findings to the Literature

The first group of findings to be discussed in relationship to the literature are those that relate to the concept of pregnancy-timed events. The pregnancy-timed events of conceiving, guarding, embracing, and birthing were

specified by the data and provide a general context for discussion of the pregnancy and birth experience of the mature gravida in the 1990's.

Time and Pregnancy

The concept of time in relationship to the duration of pregnancy is not new. It can be strongly suggested that women have always marked time in pregnancy, observing the cessation of menses, the sensation of fetal movement, the enlargement of the uterus, and the onset of labor pangs. Certain rituals and taboos have accompanied these time intervals prescribing diet, exercise, and proper conduct. Answers to questions about the health and well being of the infant have always been asked in relation to the presence or absence of interval landmarks, and persons of special authority have always been there to answer. These persons have traditionally been the shaman, the priest, the midwife, and the physician (Engleman, 1882; Murdock, 1934).

LaRossa (1983) suggested conceptualizing time as both physical and social. That is, physical time can be understood as astronomical time which means that it is quantitative, continuous, homogeneous and objective. In contrast, social time reflects the cultural setting and conventions of the group. It is qualitative, discontinuous, arbitrary, and subjective. These properties of social time allow it to render physically equal periods of time as socially unequal or physically unequal periods of time as

socially equivalent. Hence the pregnancy-timed events of the mature gravida fit as socially constructed time intervals of unique value and interpretation.

Integrated within the concept of socially derived time periods in pregnancy is the assumption that certain tasks or goals are accomplished within the designated interval. Rubin (1984) suggested that, "The pregnant woman addresses her self-assumed tasks of conserving the self and family systems while assimilating and accommodating a new, indeterminate person into these systems in four interdependent task areas" (p.54). These suggested tasks of pregnancy include: (a) seeking of safe passage through pregnancy and childbirth for self and fetus; (b) seeking acceptance by others within the social matrix of the gravida; (c) binding-in to the child as a result of the transformation from the theoretical understanding of becoming a mother to the significance and reality of becoming mother to this child; and (d) the giving of one's self in spite of feelings of resistance to submission to the events of pregnancy is confronted and understood as the woman works at "the essential and substantive meaning of giving" (Rubin, 1984, p. 66). Data from women participating in this investigation support the concept of differentiating time intervals during pregnancy. These will be discussed below in greater detail.

Hees-Stauthamer (1985) talks about an evolution of changes that occur around certain nodal points. Quickening, the first day maternity clothes are worn, the first time a stranger acknowledges her pregnancy are examples of such nodal points. In this investigation nodal points are specified by social-biological time markers and by the organizing perspective of the gravida.

Other researchers have also suggested sequential tasks of pregnancy that include the acceptance and emotional incorporation of the fetus into the gravida's understanding of self, increasing emotional attachment to the fetus during pregnancy, and certain preparatory behaviors and fantasies that function to further the development of a maternal-fetal bond (Lederman, 1984; Leifer, 1980; Winslow, 1987).

Conceiving

At each time interval, conceiving, guarding, embracing, and birthing, the mature gravida incorporates new challenges presented by the actuality of progressing pregnancy. Conceiving can be seen as an opening to the experience of pregnancy and the initiation of seeking safe passage (Entwisle & Doering, 1981; Patterson, Freese, & Goldenberg, 1990; Rubin, 1984).

The desire for conception control was expressed in work done by Entwisle and Doering (1981). They found that women expressed the desire to postpone pregnancy as a reflection of life style changes that were congruous with expanded

women's roles. The present investigation differs on several important points. The first is that the present data were collected a decade later and represents substantial social change. This change is indicated by the level and length of employment of women in the current study. The scope of preparation necessary for women to function in their employment was a major factor in delay of childbearing. It was after career, and educational obligations were settled that attention could be focused on a mate relationship and the consideration of maternity could be entertained. Secondly, Entwisle and Doering's sample represent a younger, less educated group than those represented in the current investigation. These authors also proposed that postponement of pregnancy until couples are older, more settled and affluent might decrease stress related to the event of first pregnancy and childbirth. While this is an interesting suggestion it is difficult to assess. The degree of stress involved with this transition is highly subjective and may be related to many other factors including the degree of commitment to multiple role obligations held by mature gravidae.

Lederman (1984) states that a woman's acceptance of her pregnancy can in part be evaluated by the degree to which her pregnancy was planned. According to Lederman, acceptance of pregnancy is related to identification with the motherhood role and general adaptation to pregnancy. In

the current investigation 14 women (70%) stated that they had planned their pregnancies. While 6 women stated that they did not plan their pregnancies, it was clear from the data that these pregnancies were desired. Each of the women in the current study 'adapted' to their pregnancies by a general definition, but women in the investigation were variable in the enactment of adaptation by their organizing perspective. That is to say, the types of behaviors and actions under taken by the gravida reflected the gravida's particular organizing perspective.

Rubin (1984) discusses the subjective experience of time and space as it applies to the experience of the childbearing woman. She postulates that the psychosocial time awareness of pregnancy begins at the recognition of pregnancy. According to findings from the current investigation, it would not be unreasonable to propose that the pregnancy time clock begins at the consideration of pregnancy. Rubin's work and others describe findings from studies that examined pregnancy and childbirth in younger age groups (Entwisle & Doering, 1981; Lederman, 1984). Mature gravida approach the prospect of pregnancy with a battery of medical, technological, and life experience data that provide a focus for conceiving that is unique to the experience of women in the 1990's.

Guarding

Guarding follows conceiving and emphasizes the dichotomy of desiring safety for the fetus, but similarly desiring safety for one's self as understood against the uncertainty of the future of the pregnancy (Grossman, Eichler, & Winickoff, 1980; Hees-Stauthamer, 1985; Lederman, 1984; Rothman, 1987; Rothman, 1989; Rubin, 1984).

Rubin (1984) describes the gravida's feeling of emptiness or void in early pregnancy. According to her analysis pregnancy has been confirmed and the due date seems a long way away. The subjective sensations of pregnancy are minimal. Rubin further suggests that women fill this void by continuing ongoing commitments and by sleeping. These findings point out the dramatic differences in experience between those of younger age groups with fewer external obligations and without age related risk concerns and those of older women. Mature gravaide, after confirmation of pregnancy, are confronted with choices to be made that might jeopardize the viability of the pregnancy. Even mature gravaide choosing not to have prenatal diagnostic testing feel a tension about the vulnerability of the pregnancy from natural causes that may or may not be age related. For women in this study the first trimester was marked by a sense of guarding. Guarding implied a protective stance of woman to fetus, and of woman to herself. Leifer's (1980) data supports feelings of anguish described by women in this

study by suggesting that anger or defensiveness expressed by women in the first trimester may be related to the desire to protect the fetus while at the same time subjecting the fetus to innate danger from technological procedures or simply from the unpredictable threat of spontaneous miscarriage.

Support for findings of a period of guarding that spans the first trimester and often extends into the second trimester is provided by Rothman (1989). Dr. Rothman's analysis describes a time frame of pregnancy where a woman's commitment to her pregnancy, under the conditions imposed by prenatal genetic diagnostic testing, can only be described as tentative.

In the present investigation each woman mentioned a period of guarding. The length and intensity of concern could be defined on the basis of those having genetic prenatal diagnosis and those not having prenatal genetic diagnosis. Gravida's not choosing prenatal genetic diagnosis described a period of guarding where the tentative nature of the pregnancy was considered in relationship to the possibility of miscarriage. How intensely the tentative nature of this period was felt by the gravida differed by the individual, but the length of the time period of guarding was generally shorter than experienced by women choosing amniocentesis. As the concerns that define the

guarding period are favorably addressed the gravida can then move toward the time phase of embracing.

Embracing

Embracing is a period of acceptance of the fetus as a possible child and follows quickening or results of prenatal diagnostic testing. Depending upon the duration of the guarding period the onset of the time phase of embracing may be delayed until late in the second trimester. The embracing phase incorporates many social and personal aspects of preparation for birth of a child and extends to the time of birthing.

Embracing incorporates the essence of what Rubin describes as a 'binding-in' to the child. Others have described this time phase of pregnancy as being exemplified by behaviors such as naming the baby, actively speaking to this baby, seeking preparation for birth, planning for a future with this child (Gloger-Tippelt, 1983; Hees-Stauthamer, 1985; Leifer, 1980; Mercer, 1986; Rothman, 1987; Rubin, 1984; Tilden, 1980).

Gravidae contributing to this investigation spoke of receiving news of a satisfactory genetic report and "feeling as though a switch were thrown". They could name the baby, go shopping for the baby, tell everyone about the expected child. Descriptions of this transition from feeling frightened that the decision to abort the pregnancy might be made, to the joy of being able to expect a baby were vivid

and dramatic. Work of other researchers support the finding that the time interval of embracing may hold special significance for many mature gravaidae, as genetic and gender information are often known and the fetus has been viewed by ultrasound, thus allowing for a more specific relationship with this child (Fletcher & Evans, 1982; Grace, 1984; Mercer, 1986; Milne & Rich, 1981; Roughmann & Doherty, 1983; Silvestre & Fresco, 1980; Rubin, 1984; Stewart, 1986).

Those gravaidae not pursuing genetic testing still spoke with considerable enthusiasm when describing this change in perception, but the intensity of the experience was less dramatic and probably more similar to experiences described by other researchers (Gloger-Tippelt, 1983; Hees-Stauthamer, 1985; Rubin, 1984).

Rubin also addressed the gravaida's recognition of time as a finite commodity (the time span of pregnancy) and the recognition that by the third trimester time was "running out". She proposes that as the due date approaches the urgency to complete preparations for birth of the anticipated mounts for the gravaida. Rubin describes activities and behaviors that indicate the gravaida's sense of timing. Activities described focused on completing domestic chores, dealing with physical discomforts and experiencing a sense of vulnerability and isolation. Data from the current investigation indicate a gradually decreasing interest in work and commitments outside the

home. Preparations were made for the birth. These plans were shared with family and friends, and depending upon the gravida's organizing perspective and economic need, plans to take time away from work were instituted. Less emphasis was stressed by mature gravaide in the so called domestic nesting activities described by Rubin (1984).

The time phase of embracing starts for many mature gravaide with joy and renewed energy for the pregnancy experience. As the third trimester of pregnancy progresses, more attention is focused on the inevitable experience of childbirth. The way in which preparations for childbirth were made reflected the organizing perspective of the mature gravida, but each gravida was striving to provide the least hazardous experience for herself and her baby. Rubin (1984) has termed this process of securing safety and protection for self and baby, seeking safe passage. This sense of promoting an environment that favors safe passage through childbirth for mother and baby is supported by findings from this investigation.

Birthing

Birthing represents the last landmark on the pregnancy time line where the culmination of the events of pregnancy come together to provide context for the biological, social, personal experience of childbirth (Gloger-Tippelt, 1983; Hees-Stauthamer, 1985; Lederman, 1984; Mercer, 1986).

Others have described the period of childbirth for the gravida as being one where she feels emotionally liable, fearful of being alone, vulnerable and dependent upon those around her. Some have described a loosening of body boundaries with a blurring of reality (Hees-Stauthamer, 1985; Rubin, 1984). These findings are supported by data from the current investigation. Plans that mature gravidae made for their childbirth experiences were aimed at confronting feelings of exposure and defenselessness by ensuring proper comforting care at the time of delivery.

The movement toward favoring natural or nonmedicated childbirth has been described by other researchers (Hees-Stauthamer, 1985). Many advocates of natural childbirth view this as the only acceptable way to deliver a child. Mature gravidae are aware of this phenomena and must balance their desires for other birth options against this almost assumed goal of unmedicated or natural childbirth. Childbirth preparation classes stress natural childbirth techniques. The mature gravida's disappointment with childbirth preparation classes probably reflects the gravida's organizing perspective when medicated or operative childbirth are attractive options.

Gravidas' childbirth experiences were viewed favorably if exercised options fell within her range of acceptability, e.g. if an unplanned cesarean section was performed and operative delivery fit the gravida's perspective as an

acceptable mode of delivery, then she was satisfied. On the other hand, for other gravidae interventions of any sort are seen as invasive and provide the woman with a sense of failure, lack of control, and disappointment. These findings are partially supported by others who have studied the issue of cesarean section. It was found that if the women were prepared for cesarean section they were more likely to have a positive experience while those who were unprepared had a negative evaluation of the childbirth experience (Hees-Stauthamer, 1985). It might be the case that women who prepare themselves for cesarean section find operative delivery an acceptable option while those who do not prepare find cesarean section unacceptable.

Partner's or spouse's supportive attendance at the event of labor and birth was stressed as highly important by all the mature gravidae participating in this investigation. The feeling conveyed by the women during pregnancy and again at the postpartum interview was an effort to share the magnitude of the experience as fully as possible with their intimate partner. Women in this investigation had varying ways in which they desired and engaged their partner's participation. Variation in style of needed support was dependent upon the mature gravida's organizing perspective. Many other researchers have noted the significance of attendance of partners at childbirth (Chapman, 1990;

Entwisle & Doering, 1981; Hees-Stauthamer, 1985; Lederman, 1984; Mercer, 1986).

Organizing Perspectives

The mature gravida's organizing perspective represents her interpretation of accumulated past history of biological, social, and personal events. Based upon this previous experience she begins to address the challenges presented by pregnancy. The preferences expressed by mature gravidae can be summarized by three major categories of organizing perspectives (a) technical, (b) intermediary, and (c) process. These perspectives serve as a basis for explanation for much of the variation in exercised choice and consequential feelings of competence within the pregnancy and childbirth experience. Support for a self-definitional process that accompanies the transition to motherhood comes from previous research where it was proposed that women actively construct their identities in response to life transitions, and that these self-definitions guide information seeking activities as a type of self-socialization process (Deutsche, Flemming, Brooks-Gunn, Ruble, & Stagnor, 1988).

Several authors have suggested that women delaying pregnancy until after age 30 may encounter greater feelings of conflict during pregnancy as opposing demands from professional life and maternity are experienced. It was suggested that this age group might focus on achieving a

better fit between their feelings about pregnancy and the type of medical care available to them, and that intense feelings of frustration might be encountered if the gravida cannot maintain the amount of control that she expects (Coleman, 1978; Hees-Stauthamer, 1985). Data from the current investigation would strongly support the analysis proposed by Hees-Stauthamer. Coleman indicated that an established work identity might serve as a stabilizing influence when faced with dilemmas of pregnancy. The current investigation supports the findings that the work identity was an important influence but not necessarily a stabilizing identity. Work routines were also subject to change. How the particular gravida negotiated those changes to reflect her new status as mother-to-be was a major source of stress for many and was partially explained by the gravida's organizing perspective.

Other authors have suggested alternative explanations for this observed variety in experience. Some have suggested that mature gravaide who have chosen to delay childbearing to pursue careers or education are more autonomous than younger counterparts. Autonomy may be partially synonymous with the concept of the mature gravida's organizing perspective when it is interpreted as a "secure and well-founded sense of self and self-determination... [and] may well be the sine qua non of successfully negotiating the 'I-Thou' dilemmas of the

mother-child relationship" (Guttman, 1983, p. 234). This view of pregnancy as a time-segmented biological, social, and psychological event mediated by a woman's individual perceptions is supported by the work of other researchers (Gloger-Tippelt, 1983; Hees-Stauthamer, 1985). It could be argued that Mercer's (1985) finding that 30 to 40 year old mother's maternal behaviors were not related to their perceptions of the birth experience is supportive of the hypothesis that cesarean birth fits comfortably within the organizing perspectives of those mature gravaide.

Social Influences

The reciprocal role of social others as both setting standards and exerting expectations is evident as a primary influence on the mature gravaide. Social others include her partner, work associates, family, friends, casual acquaintances, and a host of others through formal and informal social networks. Much of how mature gravaide view themselves is through interaction within this complex social milieu. It is important to note that the gravaide's organizing perspective guided the quality of support required by a particular woman at a particular time. That is, fears and concerns were more prominent when aid was given that was in conflict with the gravaide's perspective. This finding is supported by earlier research on social support, stress, and health behaviors (Aaronson, 1989;

Cranley, 1984; Crawford, 1984; Cronenwett, 1984; Cronenwett, 1985; Mercer & Ferketich, 1988).

The gravida's partner exerted significant influence and support. The primary importance of this relationship was evident in both marital and non-marital partnerships. As the women experienced the pregnancy process information was shared with her partner. The nature of the information and the degree to which it was shared varied greatly amongst the women and was influenced by their organizing perspective.

Some evidence exists that suggests that satisfaction with role arrangements/rearrangements that occur as a result of becoming parents are more central to women's marital satisfaction than to men's (Cowan & Cowan, 1988). Other investigators have stressed the importance of the partner relationship during the transition to parenthood (Cowan, Cowan, Coie, & Coie, 1978; Hees-Stauthamer, 1985; Lederman, 1984; Mercer, 1986; Russell, 1974). Few have specifically addressed the role of partner support in relationship where first pregnancy is occurring after age 35 (Mercer, 1986). It may be the case that skills required for arranging and directing life's challenges may be more practiced in older couples than it is in younger couples, but it may also be the case that a longer life experience might account for variation in information sharing and eliciting of partner support.

Women becoming pregnant for the first time are exposed to many unfamiliar pieces of information by way of sensations, experiences, and formal contacts. Men have less of this information available to them partially because they are not specifically experiencing the pregnancy, but also because the information must come from others. His primary source of information is via his partner, and although descriptive attempts are made it is not possible to fully relate the experience. This concept of information sharing becomes more important as pregnancy progresses and labor approaches because the gravida's expectation is that her partner will be able to assist her in a way that is unknown to herself as well as to her partner. While not specifically related to this age group of gravidae, other researchers have suggested that when a pregnancy is regarded as high risk by the medical community, the relationship between spouses and the significance of the supportive nature of that relationship is emphasized (Lederman, 1984b; Cranley, 1984). This situation illustrates an interesting dimension in the social aspects of the pregnancy process, that is, pregnancy is a process which highlights gender difference by its very fact and yet invites a closeness of understanding that cannot be met. The problem posed by the dichotomy of the pregnant woman experiencing a sense of interconnectedness with others while also experiencing

accented gender difference has been briefly addressed by others (Gloger-Tippelt, 1983; Hees-Stauthamer, 1985).

Biological Influences

A major finding of this investigation was that while women generally respected the cautious medical view of pregnancy after the age of 35 most did not feel that they personally ran any significant risk of a poor pregnancy outcome. Each expressed confidence in her ability to manage pregnancy as well as younger counterparts and felt that randomly occurring problems were not unlike those for younger women. The style with which problems were addressed and managed varied with the gravida's organizing perspective.

In a recent review article it was suggested that changes in demographic characteristics of women currently postponing pregnancy until mid-life tend to be healthy middle-class women rather than the previously described impoverished or subfertile woman. Women who choose to delay pregnancy and are basically healthy can be treated as such when confounding social, psychological, and medical factors that interact with advancing maternal age are taken into consideration (Ales, 1990; Berkowitz, 1990; Center for Disease Control, 1989; Mansfield & McCool, 1989).

Each of the participants who experienced prenatal genetic testing mentioned that the time period surrounding the testing itself and the interval until test results were

known as being intensely stressful. Many 'tried to forget' that they were pregnant and involved themselves in their careers. Others focused on their mate relationship and comforted themselves by saying that their lives had been full prior to pregnancy; so, if this didn't work out at least there were other activities to turn toward.

Participants who did not have genetic testing were also concerned about the stability of their pregnancies, but waited for bodily signs of reassurance, fetal movement or an enlarging belly, to signal reassurance. A number of researchers have responded to a similar observation and have examined the gravida's reported feelings of stress associated with the timing of genetic testing (Lippman, Perry, Mandel, & Cartier, 1985; Robinson, Garner, Olmsted, Shime, Hutton, & Crawford, 1988).

Other authors have looked at the labor and delivery experiences of older primiparous women in out of hospital birth centers as compared with the outcomes for younger women. Findings from these authors support inferences from others that there is no significant difference between the groups when confounding factors of poverty, parity, chronic disease, and life style are addressed (Holz, Cooney, & Marchese, 1989)

Personal Influences

The women who participated in this study were in the midst of modifying or affirming their organizing

perspectives as they confronted the challenges of pregnancy and impending parenthood by orchestrating the events of the pregnancy time period. As challenges were met that were at variance with the gravida's perspective, she was faced with the option of modifying her perspective or of sustaining an approach that was no longer suitable for current circumstances. Similarly, when new challenges were successfully met and dealt with the gravida's organizing perspective was affirmed and this new supportive information was incorporated into her perspective to serve as a resource for future challenges. Other researchers have addressed the issue of mature gravaide reformulating a personal identity during pregnancy that is in continuity with the former self conception. It was postulated by these researchers that maternal role attainment initiated during pregnancy requires a relinquishing of former modes of behavior in order to assume behaviors or actions more compatible with the emerging demands of the maternal role (Gloger-Tippelt, 1983; Lederman, 1984; Mercer, 1986; Pickens, 1982; Rubin, 1984).

Women who participated in this investigation mainly regarded the pregnancy experience as additive rather than limiting in effect on life and life style. Some of the women expressed feelings of grief over changing friendships, free time, and body image, but these concerns were expressed less emphatically than other factors. Previous studies suggested a greater sense of grief than was described by the

respondents in this investigation (Hees-Stauthamer, 1985; Mercer, 1986; Rubin, 1984).

Psychological or personal readiness to bear a child was expressed by each of the participants. When asked, why now, a variety of explanations followed. Many (85%) felt as though it was an appropriate time within the couple relationship. The search for an appropriate mate had been a chief factor in postponement of childbearing. Women spoke of difficulties in finding mates who would be willing to become a father and participate in a relationship where the woman was also career oriented. Suitable resolution of these questions promoted the sense of readiness for pregnancy at this particular time. Others expressed that career or educational goals had been met thus the timing of the pregnancy was appropriate. For some it was a combination of factors.

In support of these findings, older women were found to be more independent or autonomous than younger women and to hold less traditional views of the feminine role than their younger counterparts (Mercer, 1986; Robinson, Garner, Gare, & Crawford, 1987; Robinson, Olmsted, Garner, & Gare, 1988). Others have stated that the older first time mother may have greater developmental advantage that is enhanced by her educational preparation and emotional readiness for the maternal role when compared to younger women (Mercer, 1986).

Pickens' (1982) investigation of mature gravida's identity reformulation during assumption of the maternal role supports findings of a strong career orientation in mature gravidae. Caution is advised when addressing motherhood norms of behavior since these standards are rigid and are based on role performance by younger more traditionally oriented women. The implications of employing such behavioral standards may be that the older more autonomous career oriented woman may be regarded less positively by some as she assumes her maternal role (Guttman, 1983).

The majority of respondents (70%) indicated that the pregnancy was planned. Those stating that the pregnancy was unplanned (30%) found that they desired having a child when other options were considered. One respondent was surprised when she recognized that this might be her last opportunity to conceive since her age was approaching the outer limits of the fertile years. It was the first time that she had regarded herself as possibly growing older. Findings from Robinson, et al. (1987) were comparable regarding the proportion of planned and unplanned pregnancies occurring in their older primiparous group.

Limitations

Sample

In grounded theory methodology the researcher specifies the conditions and context of the substantive theory

presented. While the theory of the mature gravida's orchestration of pregnancy to birthing should apply to others with similar context and conditions, this theory may not be representative of all pregnant women or of all mature gravidae. The small sample size probably does not allow for all possible variation that may occur within this group (Strauss & Corbin, 1990). This added variation would serve to modify or append the theory of the mature gravida's orchestration of pregnancy events (Strauss & Corbin, 1990).

For example, if racial background is an important variable, this condition is not included within the current theoretical explanation. Similar variation is lacking in terms of partner relationships. All women in this investigation were currently involved in heterosexual partnerships. The experience of Lesbian women might add variation and serve to amend the proposed theory.

Women choosing to participate in this investigation were from the counties comprising the San Francisco Bay Area in California. All participants were previously childless pregnant volunteers over the age of thirty-five ($m=39.3$). Each had been informed by her health care provider or childbirth educator about the nature of the research. The prospective participants returned postcards to the investigator indicating a willingness to be contacted for further discussing of the project and, if appropriate, to schedule an interview. The first twenty women to return

post cards and to indicate an interest in participating in two interviews were selected. Seven additional volunteers returned postcards indicating interest in the project, but were not contacted for interview. It is not possible to know how many women were informed of the project, or how many declined to participate and for what reasons.

All of the respondents were Caucasian, well educated women. Although this corresponds well with the general demographic description of mature gravaidae, it should be kept in mind that women of minority races are represented within the growing trend of delayed childbearing, and it is very important that their stories be added to any theoretical formulation of women's experience. Not all of the women were married, but all were involved in a committed intimate partnership.

Seventy-five percent of the women indicated that they were religious, but only 25% indicated a specific religious affiliation (Jewish, Methodist, Presbyterian, Buddhist, Catholic). The women had been employed through most if not all of their pregnancies. Eighty-five percent felt that their employment was a career requiring special commitment.

Of these well educated, middle class respondents only (35%) owned their own homes. This characteristic might be an indicator that signifies a regional difference of the sample, as housing costs in the San Francisco Bay Area are amongst the highest nationally (U.S. Bureau of the Census,

1989). It may also be indicative of the fact that the partners of these women tended to be slightly younger (38.7) than the women. The effect of these factors on the representativeness of the sample is unknown.

Method

By definition the interview process is interactive. This interaction builds rapport with the participant over the time span of the two interviews and possibly influences the type of information that is revealed or is concealed. Since no measurement tools are employed and the investigator must rely on herself as the source of inquiry. The use of an interview guide and the ability to return to the respondent to clarify issues is advocated by grounded theory methodology to address these concerns (Strauss & Corbin, 1990).

As a predictable result of interviewing, according to grounded theory methodology, certain lines of questioning may vary from interview to interview. This apparent lack of consistency has been criticized by others, but is an essential component of theoretical sampling where the researcher deliberately samples data on the basis of evolving concepts (Strauss & Corbin, 1990).

The length of time that a participant must agree to designate to the research project is significant and may be a factor in whether or not some categories are underrepresented in some interviews when time became an

issue. The probable result of this factor is a lack of density in lessor categories even though the major categories are conceptually saturated (Strauss & Corbin, 1990).

As certain features of the emerging story line become prominent and theoretical sampling continues, it is imperative that the developing theory be traced back to the data. Since any one of several competing categories could be given the stature of the core or central organizing theme of the theory, it is important for the researcher to indicate how these decisions were made. While replication of the investigation might be undertaken with varying results, it is important that the researcher leave enough clues about the analytic path and any personally biasing information so that others can clearly understand analytic decisions made during the process. To the extent that this was accomplished this investigation is open to scrutiny by others.

Implications

Practice Implications

Knowing that mature gravidæ may have varying perspectives by which they orchestrate their pregnancy experience and incorporate it into the complex network of their on-going lives provides a basis for improved understanding of this group. Understanding that how a woman views herself and how she perceives her own pregnancy

related risk significantly determines where she will seek care, who she will relate to as an authority, where she will turn for information, what type of childbirth preparation she feels is appropriate, and how she will include supportive others.

As a clinician it is important to realize that it is the woman's own assessment that sets the expectations for care. Determining how the client perceives herself in the pregnancy process will provide the clues needed to appropriately address the gravida's concerns. When working in a clinical setting one tends to view the clientele that attend that particular facility as representative of the entire population of clients. It then becomes a source of confusion or disparaging critique when one hears of extreme variation of experience. For example, when a health care provider works in a university setting where routine monitoring of women in labor occurs and prenatal diagnosis is a given fact and expectation for pregnant women over age 35, it can be astounding to have some women choosing to decline genetic testing and choose to bear children at home. While certain medical legal questions might still arise in the clinician's mind, the proposed theory provides a basis for understanding how and why such choices are made.

Educational Implications

Professional Education

Part of the challenge of instructing students in clinical specialty areas is not only stimulating interest in how the health care system affects certain clientele, but also in stimulating students to question why individual consumers of health care present themselves to the health care system in the way that they do. That is, why do certain individuals who most health care providers would assess as requiring high risk care present themselves to low risk care services? Appropriate utilization of health care services has been thought of in terms that reflect the health care industry's bias and may not have taken into consideration the derivation of the consumer's need.

Community Education

It is important that as educators we provide access to community wide prenatal education that spans the breadth of consumer need. According to the findings of this study, women who understand themselves in need of technological focused health care want prenatal education that addresses how to manage a prenatal course and labor/delivery experience in a technological setting. They are interested in hearing information about anesthesia options for child birth and about surveillance techniques employed for themselves and their infants. Women of an intermediary perspective want to learn more about what technological

options are available for themselves and their infants, but also want to learn about prepared unmedicated childbirth and family participation in the hospital setting. Process perspective women are unlikely to present themselves for care at a hospital-based practice and desire information about how to gain access to the hospital under dire or emergency circumstances. The emphasis of educational needs for these women is on family participation and on unmedicated, low intervention pregnancy management. Efforts to offer prenatal education classes that address this broad range of needs as a unitary group will continue to be met with frustration by both teaching professionals and consumers.

Research Implications

Many points of interest have been raised in the course of this investigation that will be pursued in future research. Since the research resulted in a substantive theory, the theory could be tested.

Issues under the general category of social support need to be examined in greater detail from the organizing perspective of the woman. Development of a substantive theory of perspective orchestrated support networks would contribute to our understanding of how and why particular social situations function as a support system for particular individuals and not for others.

While many others have studied couple relationships during the transition to parenthood, less attention has been given to relationship dynamics during pregnancy from the perspective of mature gravidae. Questions may be asked about the relationship of the gravida's organizing perspective, the nature of the couple relationship, and how that interaction bears upon the orchestration of pregnancy-timed events.

The description of organizing perspective applies only to a small group of privileged Caucasian, middle-class women of the San Francisco Bay Area. Questions remain about other groups of mature gravidae. Women of color, women of different geographic locale, women in other family arrangements and of diverse ethnic groups may have varying ways of orchestrating pregnancy events.

Legal Implications

In this era of litigation each individual involved in the care of pregnant women is acutely aware of the possibility of medical malpractice and the liability system. Risk management is the recognition and management of potential and actual incidents that might form the basis of a lawsuit (Sinquefield, Bodenhorn, Kraus, & Raines, 1988). The ideas of risk management are not new. Simply stated it is the medical community's attempt to locate the consumer at the proper acuity level within the health care matrix.

One must offer, perform, and evaluate health care continuously and simultaneously to ascertain appropriateness and avoid negligence. Frequently the best efforts to avoid accusations of malpractice or negligence are not sufficient and questions arise about what led to the initiation of legal action. Legal scholars have suggested that poor communication between provider and client leads to litigation (Raines, 1985).

From a medical perspective we attempt to inform clients of procedure benefits and risks. The insufficiency of these attempts are documented by the continued rise of legal action. It could be argued that violated expectations or disregard for a woman's perspective of risk might be a factor within the legal puzzle. Understanding what a woman's organizing perspective indicates in terms of her information and decision making needs might begin to organize an effective additive approach to risk management.

Summary

Women over the age of 35 expecting their first baby are subjected to routine prenatal care that differs from care given to younger counterparts. Women in this age group are typically exposed to more infertility evaluations, prenatal diagnostic testing, increased antepartum surveillance, and anticipation of labor and delivery complications due to maternal age and the premium value of the pregnancy.

When the mature gravida enters the pregnancy experience she brings patterns of behavior derived from her biological, social, and personal history. These patterns of behavior represent an organizing perspective from which the gravida will orchestrate actions that occur in anticipation of, and in reaction to, pregnancy-timed events and life's random occurrences. Three major organizing perspectives were identified (a) technical, (b) intermediary, and (c) process.

Pregnancy-timed events refer to the physically and socially constructed meaning of time during pregnancy where certain events act as pivotal experiences for the gravida. These identified time markers are (a) conceiving, (b) guarding, (c) embracing, (d) birthing. The particular signals that herald entrance into one time period and exit from another, the discreteness of the time periods, and the value accorded a specific time period vary according to the gravida's organizing perspective.

When strategic actions taken by the gravida are in harmony with her organizing perspective and are appropriate to the changing demands of pregnancy, these new actions are incorporated into her repertoire and she experiences a feeling of control and success in accomplishing the challenges presented by pregnancy. If situations are presented that are at variance with the gravida's perspective and usual strategic actions are insufficiently informative, the gravida senses a lack of situational

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APPENDIX A

Sample Characteristics

Table 1. Sample Characteristics: Summary of Demographic Information of Participants and Partners

Sample Characteristics	Women (n=20)	Men (n=20)
Age Range	35-47	29-52
M	39.3	38.7
Age Distribution	Number of Participants and Partners	
29	0	1
30	0	1
--	-	-
34	0	1
35	1	3
36	1	3
37	4	1
38	4	2
39	1	0
40	4	1
41	1	3
42	4	1
--	-	-
47	1	0
--	-	-
50	0	1
51	0	1
52	0	1

Sample Characteristics by Relationship

Table 2. Description of Participants' Mate Relationships

Relationship	Marital (n=17)	Nonmarital (n=3)
<u>Percentages</u>	85%	15%
<u>Length of Relationship Range</u>	1-17 years	1-6 years
<u>M</u>	4.3	3.7

Sample Characteristics by Educational Level

Table 3. Highest Educational Level of Participants and Partners

	Women (n=20)	Men (n=20)
High School	-	1
Junior College	-	1
College		
B.S./B.A.	6	10
M.S./M.A.	12	5
M.D.	1	1
Ph.D.	1	2

APPENDIX B

Consent to be a Human Research Subject

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
CONSENT TO BE A RESEARCH SUBJECT
MATURE GRAVIDA: TRANSITION TO FIRST MOTHERHOOD

PROJECT NUMBER: H5082-05352-01

A. PURPOSE AND BACKGROUND:

Jeanne DeJoseph, C.N.M., Ph.D. and Linda C. Robrecht, C.N.M., M.S.N. are conducting a research study focusing on perceptions of pregnancy and child birth experiences of first time mothers over the age of 35. I am being asked to participate in this study.

B. PROCEDURES:

If I agree to be in the study, the following will occur:

1. I will be asked to participate in two interviews each lasting approximately one hour. During the interviews I will be asked questions about my pregnancy and/or childbirth experience.

2. One interview will take place at approximately my 37th week of pregnancy; the other will take place approximately one month after my baby is born.

3. The interviews will be audiotaped. These interviews will be done at my convenience by pre-arranged appointment in my home or at another location of my choice. While every attempt will be made for the interviews to be done in person, if the interviews must be conducted by telephone, such interviews will be at the investigator's expense.

C. RISKS/ DISCOMFORTS:

1. Certain interview topics may be distressing to recall or to answer. I am free to decline to respond to any question, and I may stop the interview at any time.

2. Confidentiality: Participation in research may involve a loss of privacy. However, procedures will be followed to protect the confidentiality of the information I give. Study information will be coded and kept in a locked file at all times. Only the investigators will have access to the files and audiotapes. After the data has been transcribed from the tapes, the tapes will be destroyed. No individual identities will be used in any reports or publications that may result from this study.

D. BENEFITS:

There will be no direct benefit to me from participating in this study. However, the information that I provide may help nursing/medical professionals to understand the special needs and concerns of women who have delayed childbearing until after age 35.

E. ALTERNATIVES:

I am free to choose not to participate in this study.

F. COSTS:

There will be no costs to me as a result of taking part in this study.

G. REIMBURSEMENT:

There will be no reimbursement for participation in this study.

H. QUESTIONS:

I have talked to Linda Robrecht or Dr. DeJoseph about this study and have had my questions answered. If I have further questions about the study, I may call Linda Robrecht at (415) 549-3923. Dr. DeJoseph may be reached at (415) 476-4694.

If I have any comments or concerns about participation in this study, I should first talk with the investigator. If for some reason I do not wish to do this, I may contact the Committee on Human Research, which is concerned with the protection of volunteers in research projects. I may reach the committee office between 8:00 and 5:00, Monday through Friday, by calling (415) 476-1814, or by writing: Committee on Human Research, Box 0616, University of California, San Francisco/ San Francisco, CA 94143.

I. CONSENT:

I will be given a copy of this consent form to keep.

PARTICIPATION IN RESEARCH IS VOLUNTARY. I am free to decline to be in this study, or to withdraw from it at any point. My decision as to whether or not to participate in this study will have no influence on my present or future status as a patient in the clinic referring me.

Date_____ Study Participant_____

Date_____ Person Obtaining Consent_____

(2/27/90)

APPENDIX C

Demographic Information Sheet

DEMOGRAPHIC INFORMATION

Name _____

Address _____

Telephone _____

1. Age: You _____ Spouse/ Partner _____

2. Are you presently married: Yes _____
(number of years ____/months____) No _____

Did you live together before getting married?

Yes____ (number of years____/months____) No ____

Have you been married before? Yes _____ (How long
_____) No _____

3. Educational level: You _____

Spouse/partner _____

4. Present job: You _____ Full or
part-time _____ Spouse/partner

_____ Full or part-time _____

How long have you been working in this

occupation? _____

5. Number of children in family of origin: You
_____ Spouse/partner _____

6. Prior childcare experience (babysitting, siblings,
etc.)? How recent was this experience?:

You _____

Spouse/partner _____

7. Religion: Do you consider yourself a religious or spiritual person? Yes _____ No _____

What is your religion? _____

Currently practicing: Yes _____ No _____

8. Number of persons currently living in your household

- | | | | | |
|-------------------|------|------|-------|-------|
| 9. Health status: | You | Mate | Other | Other |
| | Good | Good | Good | Good |
| | Poor | Poor | Poor | Poor |

10. Is your residence an apartment or single family dwelling? _____

Do you rent or own? _____

11. When is your baby due? _____

APPENDIX D

Prenatal and Postpartum Interview Schedules

PRENATAL INTERVIEW SCHEDULE

(Topics to be addressed but not necessarily in this order or verbatim)

1. Can you tell me about the time when you first decided that now was the time to be pregnant?
 - . Any difficulties encountered...
 - . Relationship with spouse/partner
2. Could you tell me about how you felt/ what your were concerned about when you first found you were pregnant? Where did you find help?
 - . Occupational difficulties..
 - . Prenatal diagnosis choices...
 - type of procedure, how it went, feelings about it
 - . Relationship with spouse/partner
3. Could you tell me about how you felt/ what your were concerned about during the fourth through sixth month of pregnancy? Where did you find help?
 - . When did you first notice the baby's movement
 - . Occupational difficulties
 - . Test results
 - . Prenatal education
 - . Relationship with spouse/partner/parents

4. Could you tell me about how you felt/ what your were concerned about during the last three months? Where did you find help?

- Preparation for labor and delivery
- Fantasies about parenthood/ life style changes
- Occupational difficulties
- Relationship with spouse/partner/parents

POSTPARTUM INTERVIEW SCHEDULE

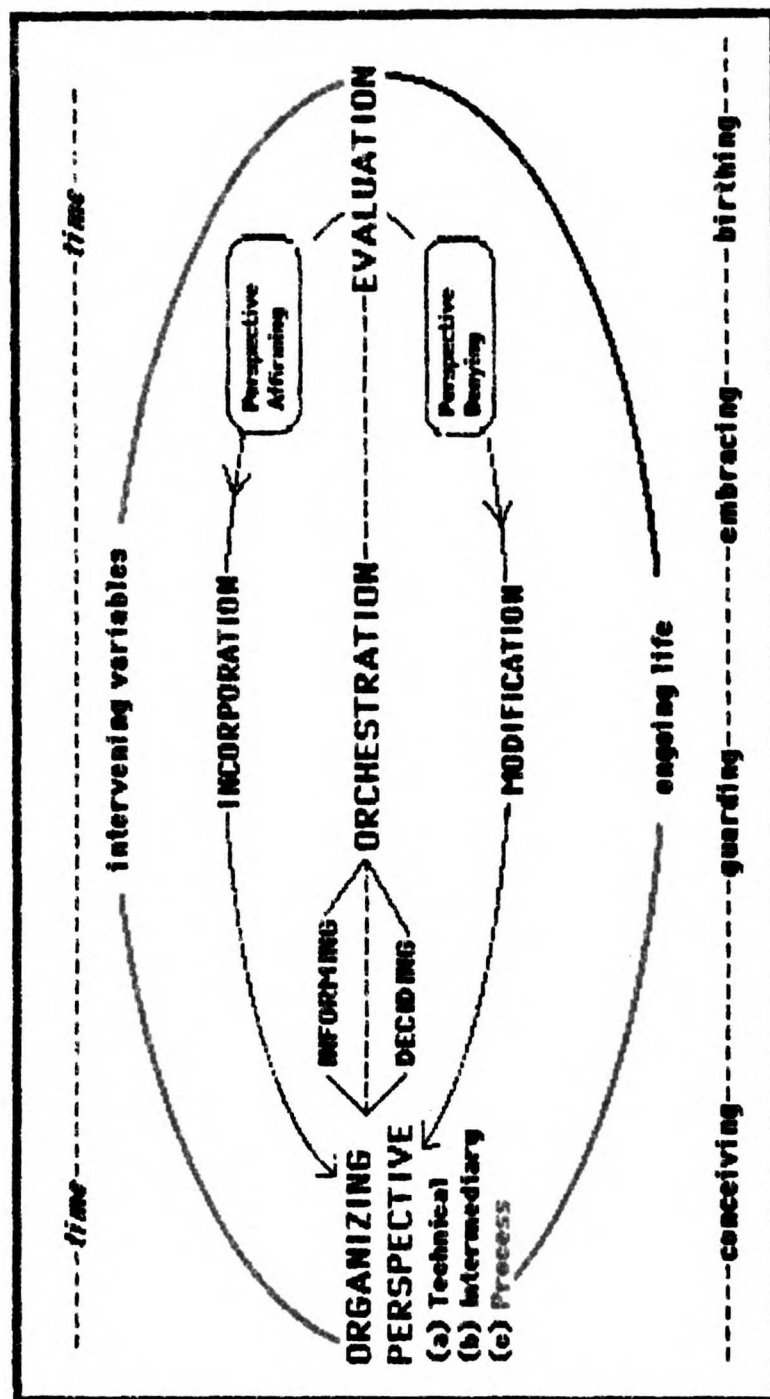
(Topics to be addressed but not necessarily in this order or verbatim)

1. Tell me about your labor-
 - How did it go?
 - Was it as you anticipated?
 - How did you feel about what happened?
 - Your concerns
 - Medications/ Procedures
 - Who was there?
2. Tell me about your baby?
3. What are your plans now?
4. What would you do differently?

APPENDIX E

Figure 1. The Mature Gravida's Orchestration of Pregnancy
from Conceiving to Birthing

Figure 1. The Mature Gravid's Orchestration of Pregnancy from Conceiving to Birthing



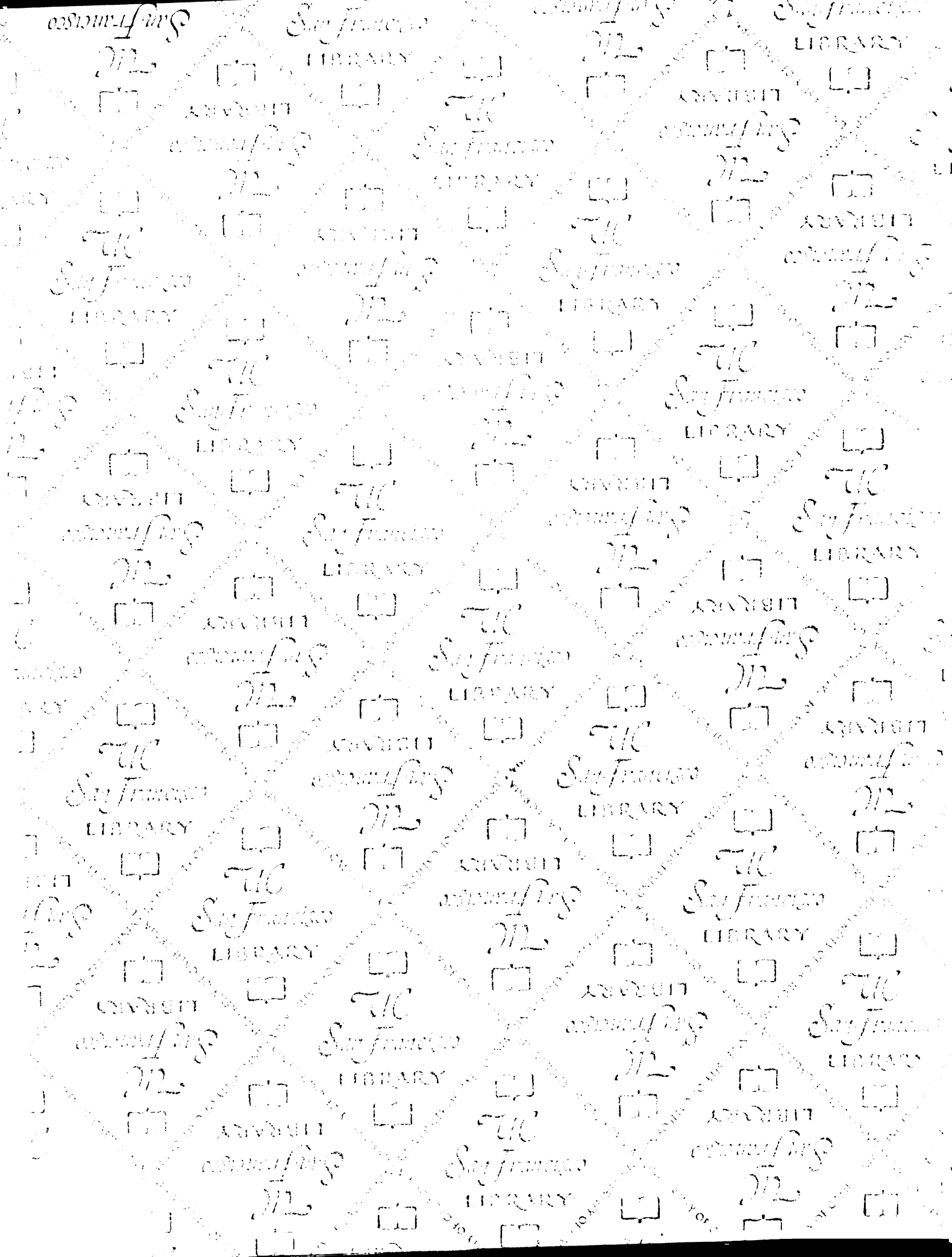
APPENDIX F

Table 4. Participants by Organizing Perspective and Pregnancy Experience

Sample Characteristics by Organizing Perspective

Table 4. Participants by Organizing Perspective and Pregnancy Experience

<u>Organizing Perspective</u>	<u>Technical</u> (n=4)	<u>Intermediary</u> (n=12)	<u>Process</u> (n=4)
<u>Pregnancy Experience</u>	<u>Percentages</u>		
Genetic Testing	100	83	25
Other Biomedical Monitoring	100	100	0
Operative Birth	75	17	0
Vaginal Birth	25	83	100
Hospital Birth	100	83	0
Health Care Provider:			
Physician	100	75	0
Nurse Midwife	0	25	100
Perspective Affirming	100	83	50



FOR REFERENCE

NOT TO BE TAKEN FROM THE ROOM



CAT. NO. 23 012

