THE IMPACT OF PREVENTIVE PRENATAL EDUCATION ON POSTBIRTH FAMILY ADJUSTMENT

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ABSTRACT

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Birth of a first child appears to be a time of developmental crisis and reorganization for married couples. Prior research suggested that lack of preparation for the degree of disorganization after birth and a subsequent drop in marital satisfaction is common for first-time parents. The present study assessed the ability of prenatal education classes to better prepare couples for the emotional adjustment to their first child's arrival.

Two 10-week prenatal curricula were constructed. The traditional (T) curriculum focused on medically oriented education for pregnancy, labor, and delivery while the experimental (E) curriculum supplemented an abbreviated version of medical and physical content with materials aimed at emotional preparation for parenting. Materials added only to the E classes included communication skills, a decision-making model, information about the impact of a child on the marital dyad, and preparatory planning for postbirth changes. Sixty-six volunteer couples were recruited from applicants for enrollment in local prenatal

education classes. After recruitment, these couples were randomly assigned to type of curriculum and to pretest or no pretest conditions.

Mailed questionnaires and semi-structured telephone interviews were completed by one-half the couples before prenatal classes and by all accessible participants at 1 month and 1 year postbirth. Measures included marital satisfaction, communication frequency and satisfaction, decision-making satisfaction, adjustment to life changes, sexual adjustment, degree of discrepancy between the expectations and the reality of how parents divided childcare tasks, and parental attitudes toward the baby. These were condensed into five scales: (a) Communication/Decision-Making/Marital Satisfaction, (b) Crisis Adjustment, (c) Sexual Adjustment, (d) Discrepancy Between Actual and Expected Division of Tasks, (e) Attitude Toward the Baby. Monitered were such potentially-confounding variables as socio-economic status, type of marriage relationship (traditional versus companionate roles), difficulty of the pregnancy, attitudes toward own parents, and attitudes of parents and instructors toward the prenatal classes.

Of the 66 couples, 33 completed pretesting, 38 completed the 1-month postbirth observation, and 39 provided data when their children were 1 year-old. Seventeen couples provided

data at all three observations. Compared to E couples, T couples tended to have more traditional role marriages ($p \leq .08$), to view their marital satisfaction as higher ($p \leq .06$), and to view their own parents more positively ($p \leq .02$).

From prebirth to 1 year after birth, E couples tended to increase slightly in marital satisfaction while T couples generally declined or dropped. This change was in the predicted direction, however, a 2 x 2 (education X pretest) multivariate analyses of variance (MANOVA) of 1-month and 1-year data revealed no statistically significant differences ($p \leq .05$) between the two groups of couples. A repeated measures MANOVA of the 17 couples with data from all three observations also revealed no significant differences between treatment groups. At 1-month postbirth, however, both T and E couples reported significant disruptions in daily routines ($p \leq .05$). Post hoc regression analyses revealed that increased postbirth marital satisfaction for both husbands and wives was significantly related to a more traditional view of marriage roles and to a less pleasant pregnancy experience. Positive postbirth change in marital satisfaction for new fathers was linked with more satisfactory prebirth decision-making procedures.

Lack of significant treatment group differences was attributed to such research difficulties such as: (a) low

receptivity toward the new curriculum due to timing and presentation, (b) near-significant pretreatment differences between groups, (c) the impracticality of a valid, nontreated control group, and (d) inadequate statistical power due to small sample size.

Recommendations for future research emphasized the need for evaluation of the role of statistical significance where small samples and intergroup differences are likely. Additional research was suggested to identify: (a) optimal times for intervention, (b) alternative forms of intervention, and (c) methods of enhancing recipients' receptivity.

DEDICATION

Dedicated to my parents Mary and Arthur Coakes, who instilled and encouraged my desire for education.

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CHAPTER ONE

INTRODUCTION

> "I remember as a student I delivered a child to a 36-year-old woman. It was her first child although she had been married for many years and she expressed no joy in this. She was glad it was over, she wished she could have had an abortion. Would she like to know if the child was all right? No. The next day I asked her how she felt about things. She said she was stuck with it. I remember this. It's been fifteen years, but I still shudder to think of what's happened to that child." (Silverman & Silverman, 1971, p. 24)

> "From Tampa, Fla.: I am 40, my husband is 45. We have two children under the age of eight. I was an attractive, fulfilled career woman before I had these kids. Now I'm an exhausted, nervous wreck who misses her job and sees very little of her husband. He's got a 'friend,' I'm sure, and I don't blame him. Our children took all the romance out of our marriage. I'm too tired for sex, conversation or anything else. Sign me--Too Late For Tears" (Ann Landers, 1976)

> "And finally, one day it dawned on me that I actually did feel guilty for having failed completely as a mother. This sense of failure seemed to invade every other aspect of my life. I almost felt unsuccessful as a person. As soon as I realized this, my spirits began to lift. Of course I had failed--I had set goals for myself that were impossible to achieve...My preparation had not been to expand my knowledge, but to plan for a kind of 'fairy tale' existence." (Harrison, 1976)

Current literature abounds with reports of disappointed parents. The implications of these unhappy parents for the mental health of their children are sobering. In fact,

casual observation of community mental health programs would indicate an increasing number of children and parents seeking psychiatric help. Even more distressing is the apparent shortage of mental health workers who are competent to assist in such problems (Blau, 1969; Miller, Hampe, Barrett & Noble, 1972). What can be done to alleviate this condition?

Response to the situation can generally take one of two forms--increase the number of mental health workers or decrease the number of mentally ill through prevention. Extensive training and use of paraprofessional mental health workers is an example of the former reaction. While such responses have been surprisingly effective (Carkhuff, 1968), they have the quality of the actions of the captain of a leaky ship who stocks up on life preservers and inflatable rafts before setting to sea.

Just as the ship captain might more effectively take preventive action, the field of mental health might do well to inspect its theoretical framework for potential mental health "leaks". Gerald Caplan (1961) has been a leader in this area both by introducing the concept of prevention on a wide scale and by investigating some of the principles involved. The family is quickly becoming a central focus of such discussions, both as an incubator for mental distress and as a support system in times of stress.

The general focus of this study was the evaluation and prevention of mental stress in young families. The

intervention was focused on the birth of the first child, an easily pinpointed event.

Crisis Theory

In general, crisis has been described as an event in a person's life which disrupts his/her usual equilibrium and confronts him/her with a situation in which previous coping behaviors are no longer adequate. Some of the earliest work done in this area examined a person's reaction to bereavement in disaster settings (Lindemann, 1944).

Not only would unexpected events such as disasters fall under the crisis heading; but according to definition, any event for which the individual's usual coping behaviors are no longer adequate could be termed a crisis. Accordingly, some writers have explored the concept of developmental crises occurring at significant change points in a person's normal life experiences. For example, entry in school for the five-year-old (or nursery school for the three-year-old) is a life experience for which previous habitual behaviors may no longer be adequate. Erickson (1968) spoke of this type of change when he said, "When the human being, because of accidental or developmental shifts, loses an essential wholeness, he restructures himself and the world by taking recourse to what we may call totalism." (p.81)

An important dynamic of such adjustments has been illuminated by Parkes (1965) who, while studying 21

psychiatric patients who had lost a spouse within six months of treatment, found that the intensity of grief began to decline in one to six weeks and was minimal after six months. This dynamic becomes crucial in the treatment of people adjusting to crisis as it is during this time of reorganization that a person is more anxious and open to therapeutic intervention (Sifneos, 1972). Crisis theory further asserts that the new coping behaviors developed during this time of stress may result in better or worse psychological adjustment than that which existed before the crisis (Argles & Mackenzie, 1970).

Even more important, successful resolution of a crisis has been seen as increasing an individual's coping ability in later stressful situations--not only has his/her self-esteem been boosted, but his/her general ability to approach a second crisis has been augmented by success (Parad & Caplan, 1960; Caplan, 1961; Sheehy, 1976).

Eliot (1955) stated that if the problems created by a crisis remain unsolved or become intensified, they are likely to lead to maladjustment in the form of breakdown, overt conflict or intermittent crisis situations. In his opinion, successful resolution of these problems should include (a) thorough catharsis, (b) acceptance of elements beyond control, (c) relaxation of tensions, (d) reorientation to new situation, (e) ability to use one's experiences as fully as before the crisis and (f) re-establishment of stable habits, self-control, etc.

These same individual crisis principles have been applied to the family. Hill (1949) noted that within the family structure itself (that is, ignoring other external natural disasters or nationally imposed disasters, such as war) there are three subtypes of crisis: (a) those of accession (e.g., births), (b) those of dismemberment, and (c) those characterized by demoralization (e.g., non-support, infidelity, alcoholism, etc.). Hill (1965) further refined his definition of crisis by specifying three general characteristics which interact to influence the outcome of a crisis: (a) the stressful event, (b) the resources of the family, and (c) the definition the family gives to the event, i.e, do they define it as a threat. Hill described a crisis as a disorganization in role patterns or a conflict over ownership of roles. In family terms, this is comparable to the earlier definition of crisis as a situation in which old patterns of behavior (in the case of the family, "roles") are no longer effective.

Once again, as in the case of individual crisis theory, families can be seen as experiencing developmental crises. Scherz (1969) has outlined these developmental points as occurring: (a) with new marriage, (b) at birth of first child, (c) at child's development of mobility (independence), (d) at child's entrance in school, (e) during child's adolescent identity struggle (see also Weiner, 1966), (f) when children have all left home (see also Bruehl, 1971), and (g) at old age.

Rappaport (1963) has looked at the tasks of early marriage in great detail. She defined intrapersonal tasks, such as preparing oneself for the new role of husband/wife and accomodating patterns of gratification which have been used premaritally to the new married patterns. She also defined interpersonal activities, such as establishing mutually satisfying patterns of dealing with outsiders and dealing with decision-making.

Scherz attempted to define some of the tasks and conflicts as emotional separation versus interdependence, closeness or intimacy vs distance, and self-autonomy vs other responsibility. Additionally, he defined some tasks as specific to a given maturation point. For example, during engagement and early marriage, both partners must develop ways of separating from their original families and finding new ways of remaining connected with the original family without detracting from the new, beginning family.

Rappaport & Rappaport (1968) spoke more generally about such transition periods. "...there is set up around each of these major transition points a period of crucial flux both within the individuals themselves and in the interpersonal relationships. Previous patterns of behavior are at least in part inappropriate to the new situation and new patterns are called for. During the period of relative 'unorganization' which is inherent in these transitions, there may emerge new patterns of social behavior which soon

become crystalized into relatively stable patterns; in addition, individuals may review and have 'another chance' at reorganizing their individual patterns of motivation, perception, expression, defence and behavior in general." (p. 33) Note the similarity between these conditions and the commonly accepted definition of crisis.

With regard to the potential adjustment to such situations, Parkes (1971) made a similar statement. Rejecting the terms "crisis" and "stress", he called such events "psycho-social transitions" and defined them more specifically as major changes which occur over a relatively short period of time, are lasting in effect, and affect the individual's "assumptive world" (that is, a person's perceptions or expectations of his world). Parkes further noted that such major transitions can affect all members of the family and necessitate the restructuring of the family unit.

Pregnancy as a Developmental Crisis

Let us now narrow our focus to the specific developmental crisis of parenthood. Pregnancy, of course, is the first step in this process of becoming a parent.

The effect of pregnancy on the mother has been an area of intense focus. In 1951, Caplan reported the outcome of small discussion groups for pregnant women. He noted that expectant mothers seem to be more concerned with their

emotions and with emotional problems than at other times in their lives. In later work Caplan (1961) observed that pregnant women seemed more susceptible to stress. This observation was made in light of pregnant women's responses to psychological tests. He found that, much like the adolescent test protocol, the normal protocol for a pregnant woman was indicative of psychosis, even for women who had no previous history of mental health difficulties. In such tests and the interviews which followed, expectant mothers' dream-like fantasies increased while old conflicts surfaced again. There seemed to be a weakening of external supports to the ego, mood swings, changes in appetites (including sexual), introversion and passivity, and changes in ego-id equilibrium. Caplan hypothesized that these changes might be caused by hormonal changes, role changes, or social-economic worries. He further noted that shortly after pregnancy, the seemingly psychotic material was repressed and the mother not only returned to normal but also forgot that she had experienced the stresses described above. In this case, each subject was used as her own control.

Along the same lines, Schwartz (1975) examined the reactions of five social caseworkers who were experiencing their first pregnancies. Several of these workers found their pregnancy arousing conflicts and doubts that they had not previously experienced. Although some of the conflicts

centered around loss of professional identity or the responsibility of leaving clients, some of them involved simply what was described as a younger, inexperienced feeling on the part of the caseworker as she functioned in her job.

Wenner & Ohaneson (1967) used open-ended interviews to study women's adjustment to their pregnancies. Fifty-two women were seen weekly in a therapy-type setting. These researchers noted that some women evidenced a loss of emotional stability during their pregnancies. Motivation for the pregnancy appeared to play a role in the degree of disturbance experienced.

Colman & Colman (1973) reported observing a similar change in pregnant women. They found their subjects to be emotionally labile and inclined toward discussing subjective experiences. The pregnant women further showed a greater accessibility of dream material and a greater need for reassurance. After birth the women were observed to return to a more external orientation and normal behavior in other aspects. These researchers speculated that it is logical for women to be internally oriented during pregnancy since they are likely to be acutely aware of inner bodily changes.

All the above studies shared a common difficulty in their lack of control groups of nonpregnant women with which to compare the data generated. Perhaps just the psychological focus in a therapeutic setting changed the

emotional vulnerability of the women under study. However, the number of studies and commonalities in their findings does lend informal support to the belief that pregnancy, the first step in becoming a parent, is a time of emotional stress for women.

While historically very little has been said about the father's reaction to pregnancy, it is now receiving greater attention. Certainly there are logical reasons for an expectant father to be reacting to impending parenthood. On a more superficial (and sexist) level, he may be reacting with pride in his accomplishment. In addition, if his wife is behaving in the manner indicated above, the husband is forced to change his behavior to interact with her.

A number of studies support the above contention. Colman & Colman (1973) reported that although men usually do not readily admit to their own emotional upheavals, expectant fathers with whom they worked were indeed experiencing such disturbances in response to the pregnancy. In interviewing 20 expectant fathers, Obrzut (1976) found 70% initially expressing ambivalent feelings toward fatherhood. An indication that at least some expectant fathers adapted dysfunctionally is reported by Hartman and Nicolay (1966) who found that within court cases examined at a psychiatric clinic, expectant fathers were disproportionately represented in the population of those who had committed sexual offenses, particularly offenses of a regressive or acting-out nature.

Expectant fathers find themselves faced with the possibility of increased financial strain. Since our culture defines this function of providing for the family as the husband's role, such a strain could influence the father's self-confidence. This may particularly be the case when a working wife terminates her employment leaving the family dependent on one income. One study of young, upwardly mobile, expectant fathers by Bernstein & Cyr (1957) concluded that only two-fifths of the 31 fathers interviewed expressed open delight at the coming birth. The remainder felt only resigned to the birth or somewhat unhappy about it. The dissatisfaction was particularly related to timing and financial strain. In our present society, one wonders if it is indeed possible to be financially prepared for raising a child. In 1971 the average middle-class family could expect to spend $25-30,000 (excluding college education) in raising each of its children (Silverman & Silverman, 1971). Current projections are undoubtedly higher.

A study of 60 primiparae and their husbands was undertaken by Liebenberg (1967). His subjects were a relatively homogeneous group of middle class, college-educated parents. He noted that his normal fathers displayed some degree of personality disturbances such as exaggerated dependency, acting-out, reactivation of unresolved parental problems, somatic symptons, and sexual disturbances. That researcher was impressed with the husbands' ability to

use a counselor for support and insight during the pregnancy period. He also noted that the husbands' participation in counseling almost uniformly facilitated communication and closeness between husband and wife.

Certainly any father who is already experiencing psychological instability is more likely to be sensitive to the potential, perhaps unconscious, conflicts his child's birth may involve. Curtis (1955) verified such a reaction in three groups of military men where each group had experienced a different degree of psychological adjustment prior to pregnancy. In those cases, the added stress of the change in life may have increased the father's current psychological problems.

LaCoursiere (1972) focused discussion on the dependency needs of the husband. As the wife withdraws her attention and focuses on herself, her fetus, and finally the baby, the husband is hypothesized to lose her attention. Thus, the husband, particularly if his own dependency needs were met inadequately in childhood and he has sought their fulfillment in the marital relationship, may experience frustration and anger toward his wife and/or child. Freeman (1961) has observed this dimension of hostility in expectant fathers. If this reaction causes guilt in the father, depression may ensue. Whether such feelings are repressed or expressed, they would create difficulties for the new father.

Further support of the increased stress on expectant fathers can be found in the incidence of violence during pregnancy. Gelles (1974 & 1975) reported an exploratory study in which, of 80 families interviewed, 55% reported at least one incident of the husband's acting violently toward his wife. Nearly one-quarter of these violent episodes occurred while the wife was pregnant. Interviews with the women who experienced beating during pregnancy implicated the husband's sexual frustration, the stress of family transition and changes in activities, biochemical changes in the wife predisposing her to be more critical or depressed, and the defenselessness of the wife as possible triggers for the violence.

In a lighter vein, husbands' indentification with the pregnant wife is obvious in some of the so-called "primitive" customs of couvade. In its simplest form, couvade consists of the father reacting to his child's delivery by either experiencing the labor symptoms or by secluding himself for a short time after his child's birth and restricting his diet almost as if he were giving birth. It is possible that modern man has not given up couvade but has merely become more sophisticated in his expression of it. In fact, incidence of this phenomenon has been found by some researchers (quoted in Panter & Linde, 1975) to be as high as 20%. Several authors (Hartman & Nicolay, 1966; La-Coursiere, 1972; Trethowan & Conlan, 1965; and Trethowan,

1968) have observed the occurrence of physical symptoms in expectant fathers which resemble those of the pregnant woman. They noted loss of appetite, nausea, gastrointestinal symptoms, and vomiting. Toothaches have also been noted to be unusually prevalent in expectant fathers. More unusual and quite uncontrolled observations of an eye specialist (Inman, 1941) and a psychotherapist (Abenheimer, 1946) related specific eye disorders, particularly styes and tarsal cysts, to what was termed an "unusual preoccupation with birth". Trethowan, using a sample of 548 expectant and nonexpectant fathers, observed that symptoms peak during the third and ninth month of pregnancy. He further described a correlation between these symptoms and anxiety about the wife's pregnancy.

Hott (1976) partially supported her view of the sequence of problems experienced by expectant fathers by turning to popular music. She noted a succession of Paul Anka's recent hits, beginning with "You're Having My Baby", proceeding to "You're a One-Man Woman and I'm a Two-Timing Man", and ending in "I Don't Like to Sleep Alone".

Our poor expectant fathers are thus seen as the battleground for untold conflicts which they nobly bear in silence--and maybe even in ignorance.

Parenthood as a Developmental Crisis

But how about parenthood itself? Can it be legitimately called a crisis for married couples? This is a subject of

many conflicting views. First this report will examine the literature supporting the crisis viewpoint and then the objections to it.

In 1957, LeMasters published some of the first empirical data exploring the effect of a child's birth on parents. Forty-six primiparous parents with children under five years-old were interviewed using a rather unstructured approach. The parents were restricted to middle-class couples between the ages of 25 and 35. No control group was employed. Interview data were collected to indicate degree of crisis as none, slight, moderate, extensive, or severe. (The rating was arrived at by agreement between the parent and the interviewer.) Crisis was defined as any "sharp or decisive change for which old patterns are inadequate." Eighty-three percent of LeMasters' new parents reported extensive or severe crisis in adjusting to the first child. They observed that extensive or severe crisis experience was the norm for the sample. They further noted that these couples did not have a history of maladjustment. All 38 couples reporting a large degree of crisis did appear to have romanticized views of parenthood and felt that they had little, if any, preparation for parental roles. Some of the mothers interviewed were actually bitter about their lack of training.

LeMasters explained his results by pointing out several possible factors: (a) parenthood may be the real "romantic complex" in our society; (b) adolescents are not prepared

in any formal way for parenthood; (c) there is increased complexity in a triad as opposed to a dyad; and (d) parenthood may mark the final transition to adulthood. LeMasters concluded that even when the final adjustment to parenthood is healthy, as in nearly all the cases he studied, parents are confronted with a crisis upon the birth of their first child.

A major limitation of the LeMasters' study was its lack of a control group. Perhaps childless couples between 25 and 35 years of age also experience a sense of re-organization and adjustment but are forced to find something other than a child to blame it on. Recent observations by Sheehy (1976) have indicated that developmental crises occur in general during this age group.

Next, only a general restriction was placed on the age of the first child at the time of the parental interview. The child could have been as old as 5 years allowing many intervening variables other than childbirth to have affected the parents' responses.

Furthermore, the sample was obtained by informally identifying new parents rather than by attempting to obtain a representative cross section. Perhaps those parents who most readily agreed to be interviewed were those who experienced more problems, or perhaps those parents most readily identified informally were those having trouble with their young child.

Finally, in the joint assessment of degree of crisis, parents could have been cued by interviewers' expectations that childbirth caused crisis.

In 1963, Dyer published results of a second study which further supported LeMasters' positon of crisis at parenthood. Again Dyer limited his sample to middle-class, unbroken marriages. His couples were contacted within two years of the birth of their child. Thirty-two couples were polled with separate questionnaires administered to both husband and wife. A Likert-type scale was devised to measure the extent to which a child's arrival constituted a crisis in the following areas of family life: (a) husband-wife division of labor, (b) husband-wife division of authority, (c) husband-wife companionship patterns, (d) family income and finances, (e) home-making and house-work, (f) social life and recreational patterns, (g) husband and wife mobility and freedom of action, (h) child-care and rearing, (i) health of husband, wife, and child, and (j) extra-family interests and activities. Dyer reported the following distribution of crisis scores for the couples studied: No crisis--none; Slight crisis--9%; Moderate crisis--38%; Extensive crisis--28%; and Severe crisis--25%. While this distribution was more moderate than the one LeMasters found, it essentially did support the belief that couples experience crisis upon the birth of a child.

Dyer's research can be criticized along similar lines to those applying to LeMasters' findings. Improvements were

made in limiting the age of the oldest child. Also by presenting a more specific focus on ten areas of family life, the couples' responses would have been less easily influenced by a "halo" effect or by interviewer bias and expectation. Again, the method of obtaining a sample was questionable since community residents were simply asked to supply the names of first-time parents.

On the other hand, while the samples in the two studies above may not have been representative, they did indicate the existence in typical communities of couples experiencing stress with the advent of a child. It is the extent of these feelings in the general population which can most easily be questioned.

Unpublished work by Feldman (1965) compared couples with children to couples without children. Feldman found childbearing couples: (a) displaying significantly less verbal communication with each other, (b) talking about children more than about themselves or their relationship, (c) feeling less close to each other as a result of conversations, (d) having lower marital satisfaction, (e) having a higher value of marriage, (f) having less marital interactions, and (g) being more responsive to conflict.

Later, Feldman (1971) examined middle-and upper-middle class couples in both a cross-sectional and a short-term longitudinal study. In both approaches, representative samples of urban couples were used. First, in a

cross-sectional approach, Feldman studied the changes in marital satisfaction and other variables over the life cycle. He found a curvilinear relationship with high happiness or satisfaction occurring in the early years of marriage and in later years after childrearing and with low points being when the last child began school and when the family had teenagers. In the same cross-sectional study, comparisons were made between those couples who had a child in the home and those who never had children. Those with children had a significantly lower level of marital satisfaction than those without, even though there was no statistical difference in the length of marriage for the two groups. This surprise finding led the author to undertake a more detailed longitudinal study of the effects of becoming parents on a marriage.

Feldman compared three groups of married couples over a nine-month period. The main study group was composed of primiparous couples. A control group was composed of couples without children and a third group, to test for the effects of replication of parenthood, included couples having their second child. Measurements occurred at 5 months prepartum and 5 weeks and 5 months postpartum. The following findings arose from that study: (a) While the majority of couples decreased in satisfaction upon the birth of their child, some couples, particularly those with a differentiated marital relationship rather than a companionate one,

did increase their marital satisfaction. (b) In those marriages with improved satisfaction as a result of childbearing, the mother's attitude emerged as important in that high maternalism and/or high expectation on the mother's part that her husband would take part in many of the child-rearing tasks were positively related to increase in satisfaction. (c) A negative attitude toward pregnancy was related to a positive shift in satisfaction after the birth of the child. (d) Both primipara and multipara experienced the crisis of parenthood with multipara demonstrating an even greater negative effect. (e) The changes related to children were lowered marital satisfaction, perceived negative personality change in both partners, less satisfaction with home, more instrumental conversation, more child-centered concern, more warmth towards the child, and lower sexual satisfaction. (f) Consensus between husband and wife on child-rearing attitudes was significantly related to marital satisfaction (as compared with consensus on wife's career orientation). All the above findings are supportive of the viewpoint that becoming a parent puts strain on the marital relationship and may be viewed as a crisis.

Finally, Rollins and Feldman (1970) reported their review of the research involving marital satisfaction over the family life cycle. Although their study examined variables over the entire family life, several interesting findings emerged. In general, while husbands appeared to

be less affected by stage of life in their subjective evaluation of marital satisfaction, wives reported a substantial decrease in general marital satisfaction and a high level of negative feelings related to marital interaction during the child-rearing and childbearing stages of the family. Thus, for whatever reason, wives became significantly dissatisfied beginning in the childbearing portion of their lives. Whether this dissatisfaction could be directly attributed to the birth of children or not, the dissatisfaction did coincide with the presence of children and was likely to be subjectively attributed to the children by their mothers.

The group of studies by Feldman corrected some of the deficiences discussed in earlier research. First, control groups entered the picture allowing more conclusive data to be obtained. Next, additional variables, such as style of marriage and maternal attitudes were pinpointed as affecting the couples' adjustment. Some of these variables were even associated with increases in satisfaction. And finally, results were confirmed in both cross-sectional and short-term longitudinal studies.

Several studies of the relationship between marital satisfaction and number of children have been done. Hurley and Palonen (1967) were the first to study this relationship. They defined a factor called child density as the number of living children divided by the number of years married.

In a sample of 40 university student couples, they found a significant inverse relationship between child density and quality of the marital relationship. Thus, the higher the ratio of children to years married, the lower the marital satisfaction. These findings were incidentally replicated by Tinker (1972) who found a -.35 correlation between child density and marital satisfaction. It should be noted that these studies were confined to university couples who had been married an average of less than six years.

Figley (1973) attempted to replicate the above results on a sample which included couples at all stages of family life cycle. Using two measures of marital satisfaction, he concluded that there was no significant relationship between child density and satisfaction. However, Figley did note: (a) a dramatic decrease in marital adjustment and communication occurring during the child-rearing period and (b) a low point reached just before launching children.

Finally, Miller (1975), intrigued by these conflicting results, broke child density into its component parts of total number of children, number of children in the home and years married in an attempt to see if any of these factors, plus child density and child spacing, could be seen to relate to satisfaction. Miller used both a Likert-type marital satisfaction scale and a conventionalization or social desirability scale. He again included couples at all stages of the life cycle. While Miller found no relationship

between child density and marital satisfaction, he did find a significant negative correlation between child density and social desirability. In his words, "perceived perfection in mates and marriages decreases as child density increases" (p. 347). One might say that marital "romanticims" had been affected by increased numbers of children.

Ryder (1973), using a longitudinal approach toward a sample of newly-married couples, examined the differences between childless and childbearing couples after one to three years of marriage. He found that wives with children, as compared those without, were significantly more likely to report that their husbands did not pay enough attention to them. After correcting his data for skew, Ryder found that child-rearing husbands were also significantly more likely to make this complaint and that childbearing wives also felt significantly more marital dissatisfaction than those without children.

While the above studies all contribute some partial support for the belief that the marriage relationship can be adversely affected by the presence of children, there are in addition a number of somewhat contradictory findings which are reported below.

Hobbs (1965) was the first to raise questions about LeMasters' and Dyer's research. His research had several stated objectives: (a) to discover if LeMasters' findings would generalize to a probability sample of first-time

parents, (b) to search for variables which were predictive of difficult adjustment to birth of a child and (c) to perform some preliminary work on the measurement of crisis. Hobbs used questionnaires to investigate a 50% random sample of white, urban, first-time parents located through public health records in Greensboro, North Carolina. Usable questionnaires were obtained from 65% of this sample. Babies' ages ranged from 3 to 18 weeks. Crisis was measured by a checklist of 23 items to which a parent could respond "none, somewhat, or very much bothered by" this item. Crisis was defined as the total extent of "bother" reported. Mothers' crisis scores were significantly higher than fathers'; however, there was no significant correlation between husbands' and wives' scores. All in all, Hobbs reported 86.8% experiencing "moderate" crisis. (All 13 persons with college degrees in this study fell in the slight crisis classification.) Using some obscure manipulation of his data, i.e., somehow classifying his parents into a slight-moderate and an extensive-severe group, Hobbs identified four variables which appeared to be related significantly to the degree of crisis experienced. First, as family income increased, there were fewer fathers in the extensive-severe category. Second, mothers' crisis scores were related curvilinearly to income with low and high income mothers experiencing significantly more crisis related to the birth. Next, when babies were ill, there

were more fathers in the extensive-severe group. Finally, when mothers had extra help in the home (other than self and husband), there were five times as many in the extensive-severe category as in the slight-moderate. Hobbs concluded that a clearer definition of crisis must be developed. He also suggested a semi-longitudial follow-up of couples after the birth along with clearer assessment of the characteristics of the couple prior to the birth.

In a later study using both interviews and a checklist, Hobbs (1968) found essentially the same extent of crisis as with the checklist approach in his previous study. The interview approach, however, resulted in a more even distribution of subjects across the none, slight and moderate categories with 3.7% of the fathers and 18.5% of the mothers reporting a severe crisis. As a result of this study, Hobbs concluded that the techniques of data collection used may be a critical factor in research findings. He furthermore concluded that "On the basis of the present investigation, it would seem more accurate to view the addition of a first child to the marriage as a period of transition which is somewhat stressful than to conceptualize beginning parenthood as a crisis for the majority of new parents" (p.417). Thus, Hobbs did not disagree that there is stress in becoming a parent but rather was doubtful as to the magnitude of the stress.

In 1974, Russell attempted to clarify some of the above contradictions through further research. Sampling

20% of all Minneapolis city residents experiencing legitimate births during a one year period, she succeeded in obtaining a response rate of 57.9% of the mothers and 53.4% of the fathers. A questionnaire consisting of Hobbs' checklist of degree of "bother" plus an additional checklist aimed at pinpointing gratifications of parenthood was used. Russell focused much of her work on these gratifications. She found education and occupation prestige to be inversely related to gratification scores of parents. Placing mother and father roles high on a list of identities was positively related to gratification. (This result could be explained by the possibility that fathers who took the time to prepare for parenthood had higher expectations for the gratifications of fatherhood and therefore worked harder at gaining positive emotional experiences with their children.) She also found that only 7.5% of the women and 5.5% of the men felt their marital relationship had deteriorated since the baby's birth, although, of the items checked for gratification, the source of the pleasure was more likely to be a personal one rather than benefits to the husband-wife relationship.

She noted that interview techniques generally seemed to result in a higher degree of reported crisis, her explanation being that responses to a questionnaire may underrepresent those experiencing more stress who tend not to return their questionnaires. Russell speculated that

effective communication partially underlies the negative relationship found between crisis and the variables of marital adjustment, planned pregnancy and conception after marriage.

Meyerowitz and Feldman (1966) used a short-term longitudinal approach to investigate the reactions of 400 primiparous couples. Couples were interviewed during the fifth month of pregnancy, at five weeks after delivery and at five months after delivery. Results were reported descriptively. During pregnancy, a general decline in marital satisfaction, more pronounced for the wife, was noted. One month after delivery, couples described their relationship during pregnancy as a low point not to be matched again. When the child was 5 months old, couples reported their marital satisfaction to be higher than pre-pregnancy levels, but they anticipated the beginning of a steady decline in satisfaction. In contrast to this verbally expressed satisfaction, the mean percentage of time the couples reported "things are going well" dropped steadily over the three interviews from 85% to 65%. Furthermore, with the arrival of the child, disagreement over child-rearing decreased while there was an increase in complaints related to the marital relationship, i.e., sexual incompatibility, inability to express feelings to the spouse, unshared leisure time and inability to discuss the husband's work. Thus, when asked directly how the baby

had affected them, respondents generally agreed that the baby improved the marital relationship, but the responses to more specific questions did not seem to support this belief. These findings, of course, raised the question of how honest couples feel they can be when asked a straightforward question about how childbearing affects a marriage. Implicit societal norms would certainly dictate that having children should enhance the marital relationship although they don't say how. Therefore, the couples above perhaps dutifully stated that children had enhanced their marriages while their responses to more specific questions indicated a decline in satisfaction.

A Sociological View of the Discrepancies

The discrepancies in research could be attributed to a number of variables. The researchers themselves (Hobbs, 1965; and Russell, 1974) have pointed to factors such as the difference in samples studied, age of child at time of study and research techniques. Further culprits were hypothesized to be the definition of crisis, the lack of control over history and the gratifications of parenthood which may outweigh the stresses reported. This writer favors a more sociological explanation, i.e., that the experience of parenthood is greatly affected by social class.

As early as 1952, Winch stated that the American middle-class suffers the greatest penalties for parenthood.

The economic drain and time constraints of children may limit participation by parents in social and work activities which sometimes facilitate upward mobility. Middle-class parents are likely to believe that some advantages are necessary for their children, e.g., perfectly straight teeth or expensive educational toys, and to worry unduly when these are not available.

Parents today are surrounded by messages that they are totally responsible for their children's mental health and growth. Yet, the beliefs about effective child-rearing have changed rapidly, leaving parents with a confusing array of possibilities, most of which conflict with the style in which their own parents raised them.

One general observation which can be made is that those studies reporting higher crisis scores and greater declines in satisfaction (Dyer, 1963; Feldman, 1971; and LeMasters, 1971) have included upper-middle and middle-class couples, while researchers who were careful to examine representative cross sections in urban areas (Hobbs, 1965; and Russell, 1974) found less crisis or conflicting information.

Jacoby (1969) examined the differences between parenting in a middle-class as opposed to a working-class setting. First, middle-class standards were described as higher, causing parents to see themselves with more responsibilities for their child's mental and physical well-being. This same predicament was also noted by LeMasters (1970).

Second, Jacoby hypothesized that working-class mothers placed greater value on having children as their major source of self-validation. Middle-class women were seen as more likely to receive primary gratifications from their jobs. This could be true for both parents in light of Russell's (1974) findings that education and occupational prestige were inversely related to gratification in parenthood. Related to this hypothesis, the professional careers of middle-class parents were more likely to be disrupted by the arrival of a child (even if that only meant less sleep and poorer ability to function), thereby disrupting the usual source of self-esteem for these parents.

Next, the middle-class husband-wife relationship was hypothesized to be more strongly established as affectively positive at time of birth. This was attributed to different expectations of what a marriage should be and also to the fact that middle-class couples tend to bear children later in life, thus allowing their relationship more time to establish itself as a dyad prior to birth of a child.

An additional possibility was that working-class mothers have had more exposure to the care of young children (as they came from larger families) and are more comfortable and more realistic about parenthood.

And, finally, Jacoby asserted that the subjects may not have been totally honest in their responses. Possibly the working-class parents felt they would be admitting to

weakness if they shared concerns about adjustment; possibly they were more committed to socially desirable responses. Or, perhaps they did not understand the goals of the researchers as clearly as their middle-class counterparts who might have been more prone to cooperate with the researchers' expectations.

In any case, the sociological differences noted above appear to this writer to be the most comprehensive and logical explanation for conflicting research results.

A Parting Shot

The question still remains even after the many investigations within the last few decades, is parenthood a crisis in the family life cycle? Even with the conflicts in research, a very strong case for the incidence of added stress during pregnancy and early parenthood can be made.

A number of authors have noted that the birth of a child can sometimes trigger mental illness for the father (Freeman, 1961; Ginath, 1974; Jarvis, 1962; and Wainwright, 1966). Stress was hypothesized to relate to a number of possible factors. Ginath noted the possibility of the occurrence of rivalry with the child, fear of incest, replays of infantile conflicts, or a narcissistic expectancy for the child to fulfill the father's frustrated dreams. He further pointed out the significance of parenthood as a maturational factor. Wainwright (1966) included some of

the above factors and added preoccupation with financial responsibility and homosexual fears and fantasies.

In women, evidence has also been found for increased stress with childbearing. Pugh, et. al., (1963) studied the rate of admission to a state mental hospital for women in relation to their reproductive status. They found the rate of first admissions for women who (a) were pregnant, (b) had delivered a child within 279 days, or (c) were both pregnant and recently delivered to be higher than expected. Results bordered on significance. When only first admissions for psychotic reactions were examined, the difference in admission rates for women experiencing pregnancy or recent motherhood became significantly greater than expected. The researchers noted that the highest risk appeared to be during the first three postpartum months.

Zemlick and Watson (1953) reported on mothers' attitudes during pregnancy, delivery and six weeks after. A general conclusion they drew was that mothers who reported an extremely accepting attitude during pregnancy may have been repressing true feelings. Their implication was that normal feelings for a mother or expectant mother may be viewed as socially unacceptable. To the extent that those feelings had been repressed somatic disturbances during pregnancy may have been exacerbated. After birth, these feelings may have expressed themselves in over-protection and anxiety. On the other hand, Zemlick and Watson saw

mothers who expressed attitudes of rejection toward pregnancy and motherhood as being more likely to meet clinical criteria of good prenatal and parturient adjustment. Of course, one does not know what criteria were used clinically to determine adjustment, and one would also assume that the rejecting attitudes of these mothers were of a slight or moderate degree and not extreme.

If marital disagreements or conflicts are viewed as stressful, then findings that college student parents ranked care and discipline of children next to sex among those problems on which they had failed to reach satisfactory adjustments (Landis & Landis, 1948) are deserving of attention. For couples married younger than those mentioned above, similar findings were noted. The most frequent conflict involved one parent seeing the other as giving in too easily while the latter judged the former as too strict. Also noted was the countermanding of one spouse's order by the other.

The above observations would lend support to the premise that parenthood is indeed a crisis-like period for beginners. Added to those observations are a number of informally gathered reports.

In contacts with mental health workers, this writer has elicited case examples of increased psychological difficulties coinciding with pregnancy and birth. Informal polling of colleagues led one clinician to conclude that, of the

cases seen for marital counseling in the small community health clinic where she worked, a large proportion of couples pinpointed the emergence of their marital difficulties near the time of a child's birth.

In informal contacts with this writer, nurse educators in the Lansing area expressed doubts that their training really provided a parent with any better tools for adjusting after the baby arrived. Although the classes may have attempted to inform the parents of possible stressors, the information was usually presented in lecture format with a grin-and-bear-it attitude that would have prevented internalization and effective planning. Few, if any, programs have aimed at helping parents internalize more emotional material or at teaching skills or techniques for dealing with the problems that may arise. For example, one commonly used film While You're Waiting (The Mott Foundation, 1967) depicted a couple moving through their pregnancy. The film did not idealize pregnancy and realistically presented the couple misperceiving each other's intentions and feelings. A usual classroom reaction was for couples to chuckle at the miscommunication and for instructors to admonish the couples to "talk to each other". However, there was no classroom discussion of how to communicate effectively. In the face of this void, more progressive and clinically oriented educators have begun recognizing new parents' emotional needs and searching for ways to meet them.

Expectant parents themselves have left prenatal parent education classes wondering if they were really prepared for parenthood. They have often felt doubtful that any class could prepare them. New parents, when approached in a supportive, empathic way, were quite aware of the added stress and responsibility they were facing and of the fact that their lives were disrupted by the new family member. Frequently a period of loss of contact and communication between the parents was described. Even for parents who appeared to be making a satisfactory adjustment, the general attitude was often one of "We had no idea it would be like this!"

Popular literature has reflected this emerging concern. There has been an increase in articles dealing with the effect of children on family relationships. Two recent articles which have occurred are "Now That You've Had Your Baby: How to handle relationships with your husband, parents, and in-laws" (Panter & Linde, 1975) and "How Much Should a First Baby Change a Marriage?" (Spock, 1976).

Informal reports, such as the ones above, again go no further to "prove" the existence of a parental crisis. However, without debating that issue further, it is easy to find acceptance of the necessity of role changes associated with beginning parenthood. The new roles are highly unlikely to have been experienced in the recent past by the first-time parent except in cases where caring for younger

brothers and sisters has occurred. Simply by virtue of the fact that the role is new and unpracticed, parents would be expected to experience initial difficulty with it. The added possibility that the actual nature of the role is unexpected and may even directly contradict romanticized expectations of parenting compounds the situation. Role changes are frequently accompanied by anxiety about performance of the role. The inherent stress, whether to a lesser or greater extent, is obvious in a casual examination of the situation.

The situation was nicely summed up by Bernstein and Cyr (1957): "Although many of these problems can no doubt be considered 'normal' and eventually self-adjusting, and are frequently mitigated by deep feelings of satisfaction in parenthood, the arrival of a baby can nevertheless set tensions in motion in the mother and father, separately or in relation to each other, which can have serious consequences for the new family." (p. 479)

Education and Preventive Mental Health

Up to this point, information supporting the existence of increased stress in families associated with the birth of a child has been presented. The focus of this study, however, was an investigation of prenatal parent education as a potential tool for reducing this family stress. Let us turn to a review of the effectiveness of education in reducing the difficulties associated with becoming a parent.

The nursing profession has usually assumed the role of educating expectant parents. In general, the rationale behind the approaches used in many prenatal classes has been to provide information aimed at reducing the usual fear of the unknown found in a new situation. Such information has aimed at a re-definition of labor and delivery and a concurrent change to a more positive, less anxiety-ridden attitude on the part of the couple. It has also involved specific training in techniques or tools to be used during the birth process. The Miracle of Birth (Brigham Young University, 1974), another parent education film, summed the approach up by enumerating the importance of: (a) realistic expectations, (b) positive attitudes and (c) supportive techniques.

Until recently, prenatal education has focused on medical information and training for labor and delivery. Three typical approaches have been used as tools or supportive techniques: (a) hypnotic pain control, (b) the Read method which involves relaxation and (c) the psychoprophylactic method (commonly referred to as LaMaze) which involves focusing attention by maintaining an active role in the birth process. A representative research finding of the efficacy of the approaches has been presented by Huttel (1972), who compared 31 primiparous mothers who had received training in a modified LaMaze approach with 41 control mothers who had received no training. Prepared

women required significantly less medication and were judged by hospital staff to demonstrate more self-control during labor and delivery.

Chertok (1967), after an extensive review of the literature on the subject, concluded, "At the present time, the advantages of prepared confinement are no longer a matter for doubt. These advantages are of two kinds: (a) those concerned with the mental health of the expectant mother and (b) those concerned with supressing pain in childbirth" (p. 705). Recently the mental health aspect has been receiving increasing support. Wueger (1976) noted the importance of pregnancy as a starting point for discussing expectations, desires and feelings about parenthood. Hott (1976) also supported the belief that expectant parent classes should begin to include more about feelings and parenting.

Education has been seen as a helpful tool in other family settings. For example, Thomas, Chess, and Birch (1968) reported a high degree of success in informing parents (and when possible the child himself) about specific temperamental characteristics of the child and methods of dealing effectively with those characteristics. Such information helped parents modify their behavior so that it did not contribute to an escalation of problems.

Along similar lines, Shapiro (1956) reported success in modifying parental attitudes toward children by exposing

parents to a series of discussion-type meetings. The more sessions parents attended, the greater was their attitude change as reflected in questionnaire scores. Of course, those parents who were motivated enough to attend may have been examining their attitudes already and may have changed whether exposed to the class or not.

In the past, our culture has tended to place a high value on education. Prominent presidents have been portrayed diligently studying their lessons by firelight. Education may be losing its favored place, though. The current trend toward teacher accountability may be one indication of a disillusionment in the heretofore unquestionned influence of education. Furthermore, the successful approaches described in the brief review of education above were surely matched, in actual practice, by unpublished failures. Therefore, the above review probably overstated education's efficacy in precipitating change. However, education still may be a potential vehicle for change with which many people might be positively impacted at a low cost and in a relatively short period of time. Therefore, it was considered deserving of continuing investigation in the present research.

This study then proposed to modify expectant parent education in an attempt to help parents better deal with the effects of a new baby on family members and relationships. Through the course, greater emphasis was placed on the

emotional impact of pregnancy for each of the parents as well as its impact on their relationship. Information about general effects of a baby on the marital relationship (previously unknown to couples or perhaps even misrepresented) was discussed. Further input included suggestions for dealing with the predicted changes. Specific communication and decision-making skills were presented within the context of pregnancy. Also included was sexuality, a subject which, according to Clark (1974), has remained a major concern for expectant and new parents.

The question became whether knowledge plus specific tools presented in the brief format of expectant parent training could be effectively utilized by parents during the critical adjustment period after birth. The hope of this research was summed up by Parkes (1971) in his discussion of psycho-social transitions: "...there is the possibility that adequate advance planning, preparation and training can transform what is potentially a major change...into quite a minor transition." (p. 113)

Hypotheses

Hypothesis One: Psychological, relationship-oriented, prenatal education (E) was predicted to facilitate better postbirth marital adjustment than more traditional, medically oriented prenatal education (T). Adjustment was measured through the Spanier Dyadic Adjustment Scale and self-report questionnaire items.

Hypothesis Two: Psychological, relationship-oriented, prenatal education (E) was expected to affect couples' postbirth decision-making process more positively than a more traditional, medically oriented education (T). Positive decision-making was measured through self-report of the occurrence of significantly more mutual decisions, as opposed to decisions made by only one partner, and of significantly higher satisfaction with family decisions.

Hypothesis Three: Psychological, family-oriented, prenatal education (E) was predicted to more positively enhance the communication patterns of new parents than traditional, medically oriented prenatal education (T). Communication patterns were measured through self-report on questionnaires tapping the frequency of discussions between spouses, the satisfaction of the spouses with that communication, and evidence of specific times set aside for discussion.

Hypothesis Four: Psychological, relationship-oriented, prenatal education (E), as opposed to more traditional prenatal education (T), was expected to positively affect beginning parents' perceptions of the extent of crisis and of their adjustment to it. These data were collected through questionnaire items which tapped the responents' perceptions of their confidence and general satisfaction after birth as compared to before the birth.

Hypothesis Five: Psychological relationship-oriented, prenatal education (E), as compared to traditional, more medically oriented education (T), was expected to reduce the degree of discrepancy between how couples thought their new family life should be and how it actually was. Such discrepancies in attitudes toward children have been found to be related to the child's later psychological adjustment (Broussard & Hartner, 1970; and Broussard, 1975). The research questionnaire tapped such discrepancies in parents' perceptions of the disruptiveness of the child and also in the spouses' perceived participation in child care.

Hypothesis Six: Psychological, relationship-oriented, prenatal education (E) was expected to enhance couples' postbirth sexual adjustment more than traditional, medically oriented prenatal education. E education provided information about potential sexual difficulties following birth along with suggestions for coping with them. Questionnaire items tapped subjects' own satisfaction with sexual relations and their perceptions of the spouses' satisfaction.

CHAPTER II

METHODOLOGY

Overview

Two forms of education were presented to groups of expectant parents who had sought training. One form (T) encompassed the physical aspects of pregnancy and birth which have been traditionally covered in such classes; the other form (E) augmented the traditional information with additional information and skills aimed at facilitating the psychological adjustment of new parents.

Subjects were couples who independently completed questionnaires and were also interviewed by telephone on two or three occasions. One-half of the couples experiencing each form of education were pretested (with an interview and questionnaire) prior to attending expectant parent classes. All subjects were assessed 4-8 weeks postpartum and again 1 year after the birth (see Figure 1 for time flow).

Thus, the design was a Solomon Four-Group Design, as described by Campbell and Stanley (1963), in which the "control" group received a treatment composed of traditional expectant parent education as opposed to the revised education received by the experimental group. The advantage of

FIGURE I

Time Flow of Experimental Procedures

September 1976	Initial contacts with October class participants and random assignment of volunteer Ss to treatment conditions
	Training of instructors
	Pretesting of half of October class participants
October 1976	Treatment began for October class participants (Instructors 1 and 4 teaching T, instructors 2 and 3 teaching E)
November 1976	Initial contact with January class participants and random assignment of volunteer Ss to treatment conditions
December 1976	Pretesting of half of January class participants
	October class participants ended treatment
January 1977	January class participants began treatment (Instructors 1 and 4 teaching E, instructors 2 and 3 teaching T)
	Began first posttesting of October class participants (4-8 weeks after birth of child)
March 1977	January class participants ended treatment
April 1977	Began first posttesting of January class participants (4-8 weeks after birth of child)
May 1977	Continued first posttesting to completion
September 1977	Began second posttesting for October class participants
October 1977	Continued second posttesting
November 1977	Began posttesting for January class participants
April 1978	Completed collection of all posttest data
April 1978	Began processing of data and writing results

the design for this study lay in its ability to check for effects of pretesting and of interactions between pretesting and treatment.

General areas tapped by the assessment included marital satisfaction, satisfaction with the child, degree of romantic expectations of parenthood, marital communication patterns, decision making and crisis adjustment.

Subjects

Subjects were 66 volunteer couples selected from those couples who had enrolled for a 10-week prenatal education class offered by Expectant Parents' Organization located in Lansing, Michigan. All parents were primiparous. Of the 66, 33 were pretested, 38 completed the 1-month follow-up and 39 provided data when their children were 1 year-old. All three observations were obtained from 17 couples. One couple was eliminated due to their child's severe health problems which involved prolonged hospitalization.

Background information was obtained on all 66 original couples. Their ages ranged from 18 to 46 years with an average of 25.5 years. Average educational attainment was 2 years past high school; however, individuals' education ranged from ninth grade through eight years beyond high school. Income for the couples varied from $4,000 to $38,000 with an average annual income of $18,6000. Couples had been married an average of 3.2 years. One couple was unmarried at the

time of pretesting while the upper limit was 9 years of marriage. Ten percent of spouses had experienced divorce prior to their current marriage. On the Spanier Dyadic Adjustment Scale, the average prebirth score for the 33 pretested couples was 118. Seventy-four percent of these subjects had dyadic adjustment scores within one standard deviation of Spanier's (1976) average for married persons ($\bar{x}$ = 14.8, σ = 17.8). While such a subject pool was not representative of the total population of parents expecting their first child, it was probably representative of caucasion middle-class couples who seek special training during their pregnancies.

Subject Assignment

After submitting their enrollment request forms, those couples who would normally have been assigned to classes beginning in October 1976 (due dates between January 20 and February 20) or classes beginning in January 1977 (due dates between April 20 and May 20) were asked to participate in this research. A letter was mailed requesting their participation in a study designed to assess and improve the training in expectant parent programs (see Appendix A, p. 124, for a copy of the letter). One to two weeks later, couples were contactedby telephone to answer any questions they had and to determine their willingness to participate.

Those couples who agreed to participate were randomly assigned to either T or E educational conditions. The

couples were then allowed a preference (when possible) of class night within the condition assigned. Couples who were unable to attend the nights of their assigned treatment condition were eliminated from the survey and enrolled in the class night of their choice. Once assigned to a class night, random assignment to pretesting or no pretesting occurred. Random assignment was done in a manner which stratified couples with respect to the time of application for education. A contract (see Appendix B, p. 125) stating the conditions of the evaluation and signed by the researcher was mailed for the couples' signatures. Background demographic information was requested with the return of the contract (see Appendix C, p. 127).

Treatment Conditions

The first group of couples began classes during October with four instructors who had been trained in both educational approaches. Two instructors employed the traditional programs and two employed the new program. In January, the second group of parents, selected as described above, began classes with the same instructors, each instructor employing the opposite educational approach from that used in the October groups.

In the past, the focus of most expectant parent training performed by the Expectant Parents' Organization had been physiological aspects of pregnancy and delivery.

Participants had traditionally been instructed in the use of relaxation techniques for use during birth, maternal and child health, and labor and delivery room procedures. In addition, past training sessions had been taught by several different instructors, each presenting information in her areas of expertise. Pregnancy, labor and delivery, and child-care had been the focus for a six-week class. Then an optional two-week class in breastfeeding and an optional four-week class in breathing and relaxation for childbirth were offered.

The present study involved two educational approaches. T left the traditionally presented information intact, but reduced the program to ten weeks taught by the same instructor. In the same ten-week period, E included an abbreviated form of the majority of information traditionally presented plus additional information areas designed to better prepare couples emotionally for pregnancy and beginning parenthood. Additional areas covered included effects of pregnancy and parenting on the marital relationship, decision-making skills, communication tools, identification of and adjustment to family stress, and realistic expectations for the new family unit (see Appendix D, p. 128, for brief content summaries of T and E). Parent manuals were used to supplement class materials.

Instructor Selection and Training

All instructors were trained in both educational approaches before the study began. In the past, instructors had received updating and new program information at monthly meetings which they were required to attend. As a result, all instructors had received a review of the traditional educational materials in their monthly meetings. In addition, instructors who had not taught the subjects of breast feeding or breathing and relaxation for birth were required to observe an experienced instructor teaching those classes.

Training for the new program (E), which merely added to the basic program (T) described above, occurred in a single weekend workshop consisting of 12 hours of training (see Appendix E, p. 134, for agenda).

Volunteer research instructors were selected after the training workshop. Volunteers were requested to make a commitment to teaching each educational approach at least once. Instructors were limited to four registered nurses who had attended the weekend workshop and were willing to follow the research design along with its limitation on course content and to teach the subjects outlined in each of the two instructors' guides.

Controls for Research Design

The teaching manuals for both approaches were used by instructors to guide their classroom approach and

structure. Furthermore, the researcher observed selected weeks of classes to determine if course content was presented without contaminating T classes with E information. As a further assessment of class materials, couples were asked to complete a checklist of class topics covered throughout the course on the final night of class (see Appendix F, p. 136, for a copy of the topic checklist).

In an attempt to control, or at least to observe, instructor differences in presenting the different programs, brief evaluation forms for each class period were filled out independently by the husband and wife. These evaluations requested subjects to use a four-point scale to rate the instructor's knowledge, enthusiasm, comfort and abilities when presenting topics. They also provided attendance records for the couples (see Appendix G, p. 137, for a copy of the instructor evaluation form).

On a personal level, every attempt was made to remind instructors that there was no clear evidence of the superiority of one program over the other. Instructors were asked their personal opinions about the two programs so that the effect of those opinions could be monitored (see Appendix H, p. 138, for monthly instructor report). Instructors' opinions were solicited on five occasions: (a) before beginning, (b) half-way through the October classes, (c) after completing October classes and before starting the January class, (d) half-way through January classes and (e) after completing January classes.

Furthermore, prior research (particularly that of Feldman, 1971) suggested that subjects should be assessed for: (a) the type of marriage relationship they possess, i.e., companionate versus differentiated and (b) the degree of the wife's comfort or discomfort during pregnancy. Therefore, a four-item scale suggested by Feldman as an indication of marriage style was incorporated in all questionnaires along with an item about pregnancy discomfort which appeared in the pretest and first posttest.

Due to the ever-present influence of modeling on human behavior, a person's perceptions of his/her own childhood experiences and his/her own parents' skills in child-rearing may have an effect on that person's perception of self as a parent and ability to adapt to parenting. Therefore, this area was briefly tapped in the questionnaire by asking subjects to evaluate the parenting ability of their own and their spouses' parents.

A new baby places an additional financial strain on a family which may be compounded by loss of one parent's income. Given societal role assignments, this strain might particularly influence the father or "provider". Financial strain may be additive with the usual family adjustment surrounding birth and was therefore monitored through the questionnaires.

Similarly, baby temperament may be a factor which affects parental adjustment. An easy-going, non-irritable

baby would certainly cause less disruption than a fretful baby who over-reacts to minor stimulation and change. Therefore, in the final questionnaire, parents were asked to rate their child's temperament along nine dimensions.

Motivation for parenthood is another variable which may affect a couple's adjustment to the newborn by influencing the gratifications that parents obtained from their new roles. For example, a parent motivated by the desire to protect and care for a child would be expected to experience different rewards from early baby care than a parent concerned with living up to socially acceptable goals by bearing a child. Thus, motivation for parenthood was assessed using categories developed by Rhodes (1974).

Finally, demographic data were gathered prior to class participation to insure that treatment groups did not differ unduly along those lines. These data included a check on the length of marriage and time spent living together.

Assessment Procedures

All couples were asked to complete the total evaluation procedure on two or three different occasions. The husband and wife each completed the procedure independently. Evaluation occurred for half the participating couples before they began education classes. All couples were then assessed 4 to 8 weeks after the birth of their child and again approximately 1 year after birth.

The Spanier Dyadic Adjustment Scale (Spanier, 1976) is a 32-item scale designed to tap the four areas of dyadic satisfaction, dyadic consensus, dyadic cohesion and affectional expression. The scale was designed by pooling all items ever used in marital adjustment scales, eliminating duplicate items, judging items for content validity and administering the approximately 200 remaining items to a sample of middle- and working-class married couples and a sample of recently divorced couples.

Validity of the Spanier scale was examined in three ways. Content validity was established by three judges who eliminated items not considered to be: (a) relevant measures of dyadic adjustment, (b) consistent with nominal definitions suggested by the author for adjustment and its components, and (c) carefully worded with appropriate fixed choices for answers. Criterion related validity was established by eliminating all items for which the means did not discriminate between the married and divorced sample ($p \leq .001$). Construct validity was established by comparing the Spanier scale with the widely used Locke-Wallace Marital Adjustment Scale. The correlation between these scales was .86 for married and .88 for divorced respondents. Internal reliability consistency was assessed using Cronbach's Coefficient Alpha. Total scale reliability was found to be .96. The Spanier Dyadic Adjustment Scale was incorporated totally as the first 32 items of each questionnaire.

Inquiries about motivation for parenthood were included in the first posttest questionnaire and in phone interviews. Rhodes (1974) established five general positive motivations for parenthood (altruistic, fatalistic, narcissistic, instrumental and conformity responses) and six general negative motivations (responsibility, freedom, physical discomfort, economic and ecological constraints, personal inadequacy and dislike of children). Rhodes' classifications and descriptions were used to score the responses obtained.

Additional elements in the self-administered questionnaire were designed to examine communication and decision-making patterns, companionate versus differentiated marriage patterns, expectations of the baby and the spouse as a parent, attitude toward own parents, financial changes, sexual adjustment, crisis adjustment, and baby temperament. Husbands' and wives' questionnaires were essentially the same (see Appendix I, p. 139, for copies of the husbands' questionnaires).

The telephone interview was conducted by undergraduate psychology students who received course credit for their involvement. Interviewers were trained in the use of open-ended and pursuit questions to elicit information in the desired areas. They were further instructed in the use of empathy and paraphrasing in order to establish rapport with parents and to check the accuracy of the answers they

recorded. Answers were written in as much detail as possible by interviewers both during and immediately after the phone interview. Approximately 10 percent of the interviews were done jointly with one interviewer listening on an extension line. These joint interviews were done to maintain consistency in interviewer behavior. Appendix J (p. 166) contains an outline of the interviewer training program.

The interview was only semi-structured to facilitate the emergence of unexpected information and variables. While occasional scaled responses were requested from the subjects during the interview, for the most part only a general topic outline was covered with spontaneous responses being recorded. Interviewers took part in establishing the final format and questions for each interview (see Appendix K, p. 168, for topic outlines of the telephone interviews).

Statistical Analysis

The hypotheses proposed the investigation of differences between treatment groups along the lines of marital satisfaction, mutual involvement in and satisfaction with family decision-making, communication frequency and satisfaction, perceived adjustment to crisis or change, the discrepancies between "should" and "actual" in a parent's preceptions of his spouse's child-care behavior, attitudes toward the baby, and sexual adjustment. Scores obtained

by each couple in the above questionnaire categories were compared at posttest one and at posttest two using a 2x2 multivariate analysis of variance with presence or absence of pretesting and experimental condition as factors. In addition, a repeated measures multivariate analysis of variance was performed on the data of those couples who supplied complete information.

CHAPTER THREE

RESULTS

Scale Construction

As noted earlier, scales were to be constructed for seven areas of interest using the information collected from individuals' questionnaires and interviews. These included scales of communication, crisis adjustment, marital adjustment, decision-making, discrepancies in views of how tasks should be and actually were divided, attitudes toward the baby and sexual adjustment. A correlation matrix was generated among all items thought to be rationally related to these scales. Final scales were determined by examining items at all three observation periods (pregnancy, 1 month after birth, and 1 year after birth) and selecting those items which correlated highly with their own, as opposed to other, scales and which contributed to their scale's alpha level (see Appendix N, p.177, for a complete description of scale items and Appendix O, p. 181, for each item's correlation with its own and other scales). Some less reliable items were retained in the final scales due to their rational value in predicting the hypotheses. (E.g., an item asking if regular times were set aside for communication correlated with its own scale .28 although its

reliability was only .03. This item was retained because much of the class content for the experimental group was geared toward such planning on the couples' part, it did not correlate highly with other scales, and it did not reduce the alpha of its own scale.)

As the scales were developed, the three scales of communication, marital adjustment and decision-making were observed to be substantially intercorrelated (minimum $\underline{r}$ = .56, $\underline{p} \leq .05$; see Appendix L, p.172), suggesting that these three scales tapped the same characteristics. In addition, items from these scales tended to be inconsistent from one observation period to the next, sometimes correlating more highly with the communication scale, sometimes with decision-making and sometimes with marital adjustment. For example, in an early scale analysis, item 8 of the final combined scale correlated most highly with decision-making for the pretest ($\underline{r}$ = .50) but at 1 month correlated most highly with communication ($\underline{r}$ = .62) and at 1 year with marital adjustment ($\underline{r}$ = .58). Therefore, these three original scales were combined for analyses (see Appendix M, p.173 for interscale correlation for the final five scales at each observation).

Examination of interscale correlations for the three subscales (see Appendix L, p. 172) which were combined to form the Communication/Decision-Making/Marital Adjustment Scale raises questions about the decline in interscale correlations from prebirth to 1-month and 1-year observations.

The z' transformation was applied to test the significance of differences between those correlations (see Edwards, 1950). From prebirth to both 1 month and 1 year, the decrease in correlation between communication and marital adjustment was found to be significant ($p \leq .05$). The correlation between communication and decision-making also dropped significantly from prebirth to 1 year ($p \leq .05$). The correlation of marital adjustment and decision-making did not differ significantly between observations.

Questionnaire information since it was more available and consistent, was the only source of items for the final scales. The sole exception to this was the Attitude Toward Baby Scale which gained most of its information from interviews.

Five final scales of Communication/Decision-Making/Marital Adjustment (CDMA), Crisis Adjustment (CRADJ), Discrepancy Between Actual and Expected Division of Tasks (DISCR), Attitude Toward Baby (ATTBA) and Sexual Adjustment (SEXADJ) resulted. Appendix N, p. 177, contains a complete description of scale items. Appendix O, p. 181, enumerates each item's reliability and correlation with its own and other scales. A brief verbal description of each scale follows.

CDMA was a 15-item scale. Its average alpha over the three observation periods was .84 (see Appendix P, p. 190 for a summary of alpha coefficients for each scale at each

time of observation). Its general content included frequency of and satisfaction with communication, degree of mutuality in and satisfaction with the decision-making process, and the total score for the Spanier Dyadic Adjustment Scale. CRADJ was a seven-item scale with average alpha = .77. It tapped the parent's perception of change and disruption in the family due to the baby. Lower CRADJ scores denoted less disruption and hence were positive. DISCR was a six-item scale (average alpha = .73) consisting entirely of items in which the subject was asked to rate both how tasks of baby care should have been divided in the family and how they actually were divided. The absolute difference between these two answers denoted the discrepancy between the responent's ideal image and view of reality. Again lower scores denoted more positive feelings. In almost all cases of differences, participants felt the husband should be sharing more equally in child care. ATTBA was a 15-item scale (alpha = .66) tapping positive and negative reactions toward the baby's presence and the degree to which parenthood was perceived as more or less difficult than expected. High scores denoted more positive attitudes. SEXADJ was a four-item scale with an average alpha of .83 which assessed the respondent's perceptions of how feelings of affection and sexuality were expressed in the marriage.

For most scales, the range of possible answers for individual items differed. In addition, a subject may have omitted one item but answered all other. To equalize item

weight, all items in a given scale were set to a common base. To allow utilization of scales with missing items, the average score for all available items in that scale was designated as the scale score. These scaled raw score averages were converted to z-scores for statistical analyses of the hypotheses.

Pretreatment Equivalence in Groups

It was anticipated that random assignment to treatment groups would guarantee equivalence between groups before treatment. To check this assumption, pre-birth variables were grouped into three general areas of socio-economic variables, perceptions of family and pregnancy, and outcome scale scores; and multivariate analyses of variance (MANOVAs) were performed comparing the two treatment groups.

Socio-economic variables included levels of education for husband, wife and their parents, income, length of marriage and whether the couple had lived together. The MANOVA on these variables was not significant ($p \leq .39$) indicating that the two treatment groups did not differ appreciably in socio-economic status.

Perception of family and pregnancy included both spouses' views of their marriage style (companionate versus differentiated), the couple's perceptions of their own parents' adequacy in raising children, and the couple's perception of the degree of discomfort experienced by the wife during the

first two trimesters of pregnancy. A MANOVA indicated that the two groups did not differ significantly along this dimension ($p \leq .11$). An interesting trend in the univariate F-tests for each of the above variables was that the couples' views of their own parents' adequacy differed significantly ($p \leq .02$), with T couples perceiving their parents more positively than E couples. In addition, there was a trend for T couples to perceive their marriages in a more traditional style than did E couples ($\bar{X}_T = 15.56$, $\bar{X}_E = 14.63$, $p \leq .08$).

Pretreatment outcome scale scores included CDMA, CRADJ, and SEXADJ. A MANOVA performed on those scale scores indicated that prior to treatment, groups did not differ appreciably on those outcome measures ($p \leq .11$). However, another interesting trend surfaced in the univariate F-tests performed on the variables. T wives had significantly higher CDMA scores ($p \leq .04$) than E wives before treatment; and a similar trend ($p \leq .08$) existed for T husbands. A closer look at couple scores on the Spanier Dyadic Adjustment Scale alone revealed a similar but sharper difference ($p \leq .01$). Furthermore, the variance on both the CDMA and the Spanier scale was significantly greater ($p \leq .05$) for the couples receiving relationship-oriented education (E). Thus, prior to treatment, the T subjects had marital adjustment scores which were both higher and more homogeneous than those of E subjects.

In summary, when multivariate analyses were performed comparing T and E groups prior to treatment, none of the three areas of socio-economic status, perceptions of family, and pregnancy outcome scale scores showed significant differences. Univariate F-tests, however, revealed pretreatment differences with couples receiving physiologically oriented classes showing more positive views of their own parents, better marital adjustment and less variance in adjustment scores.

Equivalence in Classroom Treatment

In the present study, treatment approaches were expected to differ in classroom content while dimensions such as attendance and perceptions of instructors would, hopefully, be comparable. To assess differences in class content, couples were asked in the last class period to complete a checklist of the topics which were covered in the class series (see Appendix F, p. 136, for a copy of the checklist). The topics which were to be covered only in E sessions were analyzed by summing the number of those topics checked by each parent completing the checklist. These total scores were then subjected to a t-test. T subjects were found to score significantly lower ($p \leq .001$) on this total than E subjects. Thus, the content of the treatments differed as expected.

To check for differences in other classroom variables, a MANOVA was performed comparing T and E subjects on their

attendance and on their ratings of instructors' knowledge of, enthusiasm for, comfort with, and ability to present each day's topics. This MANOVA was not significant ($p \leq .07$) suggesting that these classroom variables were comparable for both treatment groups. However, T subjects averaged higher class attendance ($\bar{X}_T$ = 7.75 classes, $\bar{X}_E$ = 6.66 classes); and except for the final class, a lower percentage of total E subjects attended each class period than their T counterparts. The difference was particularly notable in the initial three class periods when rationale for the relationship-oriented approach had been heavily emphasized (see Figure 2).

Thus, treatment for the two groups differed as expected along the lines of the information covered in the classes although it did not significantly differ for such classroom variables as attendance and rating of instructors. Couples receiving relationship-oriented (E) class content tended toward higher absenteeism than did T couples.

Tests of Hypotheses

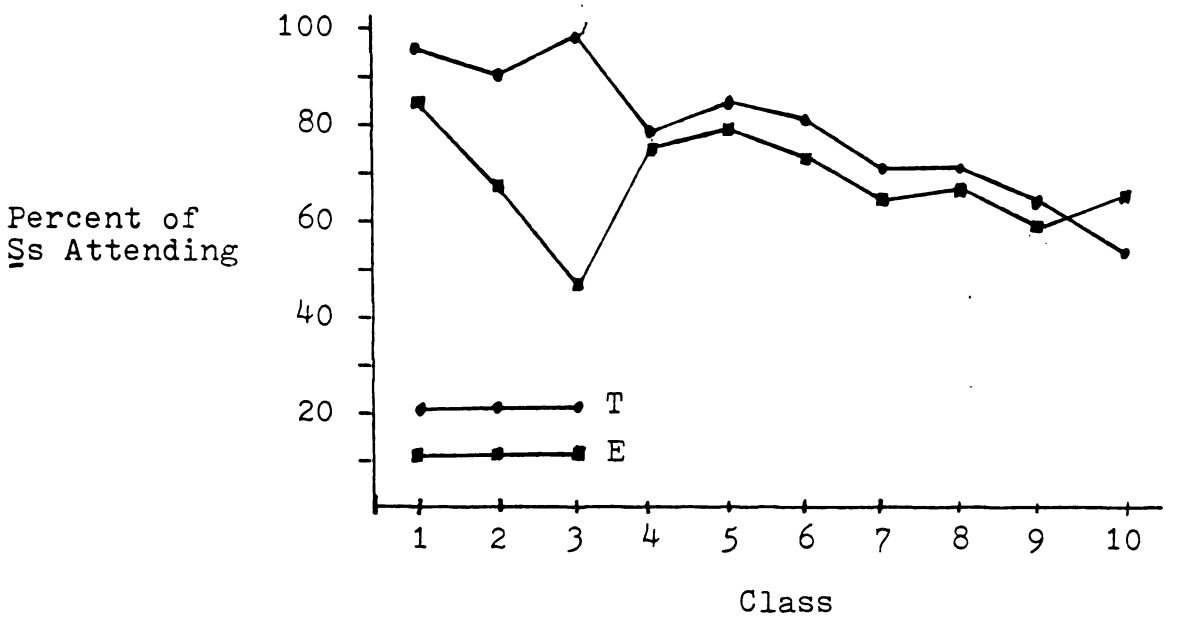
It was hypothesized that relationship-oriented prenatal education (E), as opposed to prenatal education presenting only more traditional physiological information (T), would result in the following postbirth differences in the family:

--higher marital adjustment (hypothesis one),

--more positive decision-making processes (hypothesis two),

FIGURE 2

Percentage of T and E Subjects
Attending each Class Period



--more frequent and satisfying communication patterns (hypothesis three),

--better adjustment to the developmental crisis of beginning parenthood (hypothesis four),

--more positive attitudes toward the baby and toward the spouse's role in child-care (hypothesis five), and

--better sexual adjustment (hypothesis six).

Hypotheses one, two and three were combined in the CDMA scale. Hypothesis four was measured by the CRADJ scale. The scales of ATTBA and DISCR both tested hypothesis five; and SEXADJ was employed to measure hypothesis six.

"Subjects" consisted of couples. Statistical analyses were run using both the husband's and wife's scores on all scales as the components of each subject's score. Thus, for example, at the 1-month observation, each subject's score consisted of both the husband's and wife's individual scores for CDMA, CRADJ, DISCR and SEXADJ. Although, as could be expected, husbands' and wives' scores were highly correlated ($p \leq .05$ for every scale except CRADJ at 1 month), the multivariate technique is able to take such relationships between variables into account (see Appendix P, p.190, for correlations between husbands' and wives' scale scores at each observation).

All hypotheses were tested simultaneously using 2 x 2 (treatment group by presence or absence of pretesting) multivariate analyses of variance for both the 1-month and 1-year observations. No significant differences were found between treatment groups at either time period.

Further repeated measure MANOVAs were run using attendance and the three prebirth scale scores (CDMA, CRADJ and SEXADJ) as covariates in an attempt to control for the trends in differences between treatment groups at pretesting. Once again, no significant treatment effects were found.

In a second series of statistical tests, a repeated measures design was used to examine the scores of the 17 couples for whom there were data at all three observations. Once again, no significant differences were found between treatment groups. However, all couples changed significantly in scores from pretesting to the 1-month posttest and from the 1-month posttest to the 1-year follow-up. The major variable accounting for the change was the CRADJ scale, which showed more disruption in the couples' family lives immediately after birth than during pregnancy or at 1 year postbirth. (see Table 1, p. 68, for average z-scores of these couples at each observation.)

The null hypotheses could not be rejected at the .05 level of significance.

Post Hoc Analyses

An attempt was made, using multiple regression analyses, to determine which pretest variables were predictive of more positive postbirth marital adjustment. To accomplish this, data from all couples, regardless of treatment condition,

TABLE 1

Average Z-Scores for Couples with Complete Data[a]

Scale	Time of Observation	Prebirth ♂	Prebirth ♀	1-month ♂	1-month ♀	1-year ♂	1-year ♀
CDMA	T	.270	.176	.007	.037	-.147	.127
	E	-.280	-.406	.084	-.175	-.090	-.225
CRADJ	T	-.128	.139	.198	.161	.207	.147
	E	.083	.163	.362	.137	.197	.066
SEXADJ	T	.166	.066	.376	.092	-.065	.107
	E	-.522	-.394	-.491	-.360	-.568	-.730
DISCR[b]	T			-.204	-.209	.078	.114
	E			-.206	.149	.254	.386
ATTBA[b,c]	T					-.227	-.077
	E					.188	-.080

[a] N = 17 (9 Ts and 8 Es)

[b] Scale not administered prebirth.

[c] Scale not administered at 1-month postbirth.

were utilized. Since the Spanier Dyadic Adjustment Scale has been established as internally reliable and externally valid, it was used to calculate four change scores, one for each individual husband and wife at 1 month and at 1 year after birth. (Note the shift from considering the couples as units to considering husbands' and wives' scores separately.) The regression analyses were performed to identify predictors for these change scores.

A total of 30 couples had complete questionnaire data for both the pretest and the 1 month follow-up; and 28 couples had complete data for the pretest and 1 year follow up, with 17 couples common to both groups. Demographic data and all pretest questionnaire items for both husband and wife were considered as potential predictors of change in marital adjustment. In addition, change scores for both husband and wife on each of the three outcome measures common to all observations (CDMA, CRADJ and SEXADJ) were considered.

Before attempting the regression analysis, items to be considered as predictors had to be reduced to a manageable number. Accordingly, correlations were computed between each potential predictor item and the Spanier change scores obtained for husband and wife. Only those items which were significantly correlated ($p \leq .05$) with the Spanier change score were included in a given regression analysis. Finally, those items selected for analysis were examined with regard

to their relationships to each other. Where high correlations existed between potential predictor items, they were combined to create a single composite variable.

For example, five questionnaire items, two requiring both husband and wife to indicate the percentage of time s/he had felt satisfied with the marriage relationship, two requiring both husband and wife to indicate the percentage of family decisions with which s/he had felt satisfied, and one requiring the wife to indicate the percentage of time things had been going well, were all significantly correlated with both husbands' and wives' Spanier change scores at 1 month and at 1 year. Therefore, these items were selected for further analyses in predicting each of the four change scores examined. In addition, each of these five items correlated highly with each other. Therefore, they were averaged as a composite variable for purposes of the regression analyses.

The final variables used for each regression analysis along with summary tables of the analyses can be found in Appendix R (p. 192). Cut-off points are indicated in the summary tables by solid lines for the point at which the significance of the prediction begins to increase as new variables are added and by dotted lines for the point at which the combined predictors are no longer significant at $p \leq .05$.

The following are observations of these data and trends:

1. Positive postbirth marital adjustment for the wife at

1 month, husband at 1 month, and husband at 1 year correlated negatively with what might be termed a general expression of family well-being during pregnancy. This expression of well-being was composed of the variable described above as a combination of percentage of time things have been going well, percentage of decisions agreed with, and percentage of time satisfied with the marriage relationship.

2. Postbirth marital adjustment at 1 month for both husband and wife was positively related to a number of factors that suggested traditional attitudes toward family roles. These included the wife's belief that she should predominantly arrange for baby care when she must be away, the wife's expectation that the addition of a child would cause great changes in her lifestyle, the husband's report of less time spent daily in conversations, the wife's report of less consulting with her husband when decisions were made and the husband's belief that his wife should feed the baby more often than he.

3. The husband's postbirth marital adjustment at both 1 month and 1 year related positively to satisfactory prebirth decision-making. This decision-making included both husband's and wife's reports of higher satisfaction with their own and their spouse's participation in decision-making, husband's reports of a higher degree of joint decision-making and wife's reports of a greater degree of satisfaction with decisions about parenting.

4. No pretest variable satisfactorily predicted the wife's change score for 1 year at $p \leq .05$. The best predictor was her expectation of a great deal of change in her relationship with her spouse ($p \leq .068$).

5. The following three relationships appeared unrelated to the trends identified above or to each other: (a) An inverse relationship existed between how well the husband thought his wife's parents did raising her and the husband's positive marital adjustment at 1 month. (b) A positive correlation existed between the husband's adjustment at 1 month and how much he expected the new baby to change his sleeping and eating habits. (c) The wife's degree of satisfaction with her job situation during pregnancy was negatively related to her husband's positive marital adjustment at 1 year.

In summary, the regression analyses would indicate that postbirth marital adjustment for first-time mothers and fathers, related positively to a marriage with more traditional roles, but related inversely to more positive views of the pregnancy experience. Also new fathers experienced improved marital adjustment after birth if a satisfactory decision-making procedure existed before birth. Significant predictors of the mother's marital adjustment change when her child was 1 year old were not found.

CHAPTER FOUR

DISCUSSION

All couples in this study, regardless of treatment, changed significantly in scores from pretesting to 1 month postbirth and from 1 month postbirth to 1 year postbirth. Furthermore, the changes were such that at 1 month postbirth, couples' scores were significantly different from their scores at prebirth and at 1 year postbirth. The major measure contributing to that change was the Crisis Adjustment Scale (CRADJ) which was highest at the 1-month observation. The CRADJ scale asked the couple to describe how much change was anticipated (prebirth) or actually had occurred (postbirth) in a number of household routines such as eating and sleeping, relationship with spouse, sexual relationship, leisure time, etc. This result then revealed, not unexpectedly, that after 1 month a new baby had impacted family routines significantly more than the parents expected and that 11 months later the disruptions had been significantly reduced. The foregoing information would support use of a crisis model to describe the family process of integrating a child. According to repeated measures analyses, the severity of the event was unexpected by the couples, and they adapted to the changes,

over time returning to a more normal, predicatable routine.

Supporting the proposition that the family changes occurring at birth may have a long-term effect on the marital relationship were the serendipitous findings of significant declines in correlations between elements of the marital relationship. Within the CDMA scale, the subscale correlations of communication with decision-making and marital adjustment decreased significantly from pre-birth to 1 year (see Appendix L, p. 172). A similar, but nonsignificant, decline occurred in correlations between husband's and wife's scores for CDMA and CRADJ (see Appendix Q, p. 191). These findings suggested that the birth of a child may have contributed to overall disorganization and loss of congruence in several aspects of marital adjustment and in spouses' level of agreement about their marital satisfaction. There were indications that these correlations might be slowly increasing again both for spouses' degree of agreement and for the relationship between communication and marital satisfaction although the data were insufficient to confirm that trend.

In light of the above findings, the perspective researcher would be advised to extend follow-up measurements well past the initial postbirth changes if long-range conjectures about family changes are desired. The parent-to-be might use this information for anticipatory planning

and for encouragement while attempting to survive the immediate postbirth confusion and the potentially longer-lasting marital disruption.

Illustrations of Families Experiencing Great Life Changes

A look at the characteristics of those research parents who experienced the greatest life changes was thought to be potentially enlightening. Accordingly, four couples were identified who had 1 month posttest crisis scores in the top 10 percent as determined by individual scores and the couples' composite scores.

Couple A had been experiencing difficulties before the prebirth interview. They had been married only 1 month before discovering the pregnancy. At the prebirth interview, the couple was seeing a marriage counselor and had apparently separated. The husband stated that marriage and a pregnancy were "too much at one time." Marital problems became compounded with physical ones as the baby's birth was late and attempts to induce labor failed. Finally, labor began spontaneously but complications led to a Caesarian section after which the infant was kept in intensive care. Mother and infant did not see each other for two days. Further financial burden was added by the mother's medical expenses which were not covered by insurance and required the father to work at two jobs. At 1 month postpartum, both husband and wife expressed dissatisfaction

about the time they had to talk. The baby's crying was identified as a stimulus for marital conflict. This couple, then, experienced a series of difficulties concurrent with, and related to, their child's birth. These difficulties added to the degree of crisis and change they experienced.

Couple B had been married 2 years before this planned conception. Both husband and wife worked with children and had many detailed expectations about parenthood. The mother, who worked with handicapped children, expressed intense prebirth fears that her child might be defective. After a difficult 23-hour labor, the baby was taken by Caesarian section. The husband described labor and delivery as "crude" and "a difficult job for hospital staff." Once the baby was home, both parents were startled by the difference between the child and their expectations. The mother was surprised at the extent of her infant's social responses but disappointed at the amount of time required and the restrictions placed on her by child-care. The father felt that his wife was experiencing fulfillment in her maternal role, but he was disappointed and repeatedly expressed a longing for the infant to grow up so he could enjoy it more. He felt his wife was overly tired and vented her anger on him for "not doing his share." He was also surprised by his frustration and anger at hearing the baby cry. Neither parent felt household routine had returned to

normal by 2 months after birth. This couple, then, in addition to a difficult labor and delivery, experienced violations of many specific expectations of their new baby and their shared parental role.

Couple C had been married 5 years and conceived after 3 years of attempting to have children. It was necessary for them to consult a fertility specialist during that time. A miscarriage had occurred before the successful pregnancy. Both husband and wife had specific expectations of the rewards and costs of the coming baby. The husband had prepared himself by doing volunteer work with infants. Delivery involved a Caesarian section that "panicked" the mother. (Did she consider it another failure after her miscarriage and the need for a fertility specialist?) She had expected a boy rather than a girl. When first seeing her infant after birth, she didn't like it. The infant was described as crying a great deal. Both parents stated that they had expected changes with the baby but the demands and the extent of the change were greater than anticipated. They repeatedly stressed the necessity of placing the baby's needs first. So these parents also found themselves facing a crying baby who violated their expectations.

Couple D was surprised to learn of their pregnancy since the mother had been told that she was not ovulating. Their discussions during pregnancy were psychologically and developmentally oriented and included thoughts about the

baby, each partner individually and their relationship. They appeared to value marital communication and to rely heavily on it during the first trying months of parenthood. The father had expected and wanted a boy rather than a girl. Their child required much more attention and time than they had anticipated as she was born with heart problems and without a thyroid gland. (In fact, this couple was eliminated from statistical analysis because of the severity of health problems which necessitated cross-country trips to special clinics.) The mother stated she had expected "more enjoyment and less worry."

In each of these cases the new baby violated parental expectations and hopes. The unexpected situations included health problems, excessive crying, wrong sex, and more demands for time and care than was expected. Three out of four experienced Caesarian births, while the incidence of C-sections in the total subject pool was only 9%.

The Caesarian birth is a deviation from the normal vaginal delivery for which the parents have specially prepared themselves through prenatal classes. C-sections are often based on potential health hazards for the baby and/or mother. Anesthetics and surgical procedures usually result in separation of the mother and infant for a period of time after birth. Klaus and Kennell (1976) have emphasized the importance of early contact in facilitating attachment. Lack of early contact, while not precluding

attachment, may limit the contributions of biological mechanisms, such as hormonal changes, and may contribute to initial reactions such as Mother C's statement that she didn't like her baby when she first saw it.

Many hypotheses could be made about the cause of the violations of these parents' expectations. Was it lack of opportunity for initial attachment? the constitutional nature of the children? lack of adequate educational preparation? inability of the parents to incorporate negative experiences? excessive emphasis on being the "good" parent? fear of inadequacy as the child did not develop as expected? In any case, it is encouraging that 1 year after birth, these parents did not, on the average, describe their children's temperaments much differently than did the total sample. Thus, those early perceptions did not necessarily carry on through the children's lives. In fact, probably over time the physical problems began to correct and parents learned to cope, allowing them to adjust their self-concepts. Mother D expressed tremendous relief simply from diagnosis of her baby's ailment. Mother A illustrated the impact of a difficult infant on her parental self-concept when she indicated that she began to feel much better about herself once the baby was doing well.

Implications for Prenatal Education

The above findings have implications for later parenting classes. First, it appeared that parents generally had inaccurate expectations of the disruptiveness of a new baby. They may have also had false expectations about early rewards in parenthood (certainly several of the couples scoring high on CRADJ at 1 month did). Prenatal classes could strive to correct these misconceptions and to provide anticipatory guidance for the realities of new parenthood. Parents could be informed of the time-limited nature of the disruptiveness surrounding beginning parenthood. Parents could likewise be warned of the severity of the disruption in an effort to promote better anticipatory planning.

Research results indicated the importance of better preparation for the possibility of a Caesarian birth. The local prenatal groups and health department currently provide some information and special films for couples who have planned Caesarian births. However, in the present study, parents with unexpected C-sections who had attended the usual prenatal classes complained that they were unprepared. Part of the lack of preparation undoubtedly stemmed from the attitude that "it won't happen to me". With the growing incidence of Caesarian births, parents may need information about the likelihood of this event, the details of what will happen, and the manner in which

they can help each other create a positive experience during and after the surgery. Classes may need to emphasize the brevity of labor and delivery in comparison with the many subsequent years of parenting. Expectant parents often anticipate that the birth experience will be a peak emotional experience. Prenatal classes usually increase this expectation, rather than tempering it with more realistic views. Certainly birth can be a beautiful experience for parents, but it can just as easily prove to be exhausting and frightening.

Limitations and Difficulties of This Study

This experiment was not successful in obtaining statistically significant differences between treatment groups. The most conservative conclusion to be drawn from the lack of significance was that the implementation of this particular psychologically oriented educational experience was not powerful enough to affect a family's adjustment to a first child in a significantly different manner from a more typical, medically oriented prenatal education. In light of this a major issue to be examined is whether statistical significance should be given such a powerful role in determining the effectiveness of human services. Even moderate trends toward differences in preventive research may be sufficient reason to continue and refine a program. A small trend identified in a short-term,

longitudinal study may amplify over succeeding years into a major difference. Furthermore, the benefits of even small psychological advantages are difficult to price.

This experiment was beset with many difficulties in execution and in statistical analysis. Without some of those difficulties, slight trends in data might have assumed statistically significant proportions. Such dificulties should be taken into account in evaluating this human service program. Enumeration of those difficulties follows.

Statistical Limitations

First, the number of subjects for whom data could be collected was small. At 1 month postbirth, 38 subjects were available (19 couples in both T and E), while the 1-year follow-up examined data for 39 couples (20 in T and 19 in E). For the repeated measures analyses, only 17 couples (9 Ts and 8 Es) had complete data. Such small samples required substantial differences in outcome measures to achieve statistical significance. For the above cell sizes, differences between treatment groups would have had to be large (.4 and .5 standard deviation) for a reasonable chance of finding existing significant differences (Cohen, 1969).

Next, pretreatment MANOVAs did not reveal statistically significant differences between treatment groups although

the two groups were not clearly comparable when pretest and classroom variables were examined. As noted in the results section, the group that received psychologically oriented education (E) tended to have lower marital adjustment as measured by the CDMA scale. When only the Spanier Dyadic Adjustment Scale was examined, this difference was significant. Further difficulty in establishing statistically significant differences between the two treatment groups evolved from their wide range in scores. The psychologically oriented group (E) had a significantly greater variance in CDMA prebirth scores than did their physiologically educated counterparts (T). Hence, the standard deviations for E couples (.27 for husbands' scores and .58 for wives') were virtually so great (especially in comparison with the standard deviations of the T subjects which were .14 and .16, respectively) as to preclude the finding of significant differences even though the mean CDMA score was .25 points lower for T than for E.

It is interesting to note that this significant difference in CDMA score variance did not recur in the posttest observations. Perhaps the psychologically oriented education truncated extreme positive and negative scores. (The effect was not caused by attrition of couples who scored at the extremes.) Perhaps couples with very positive marital satisfaction scores were negatively

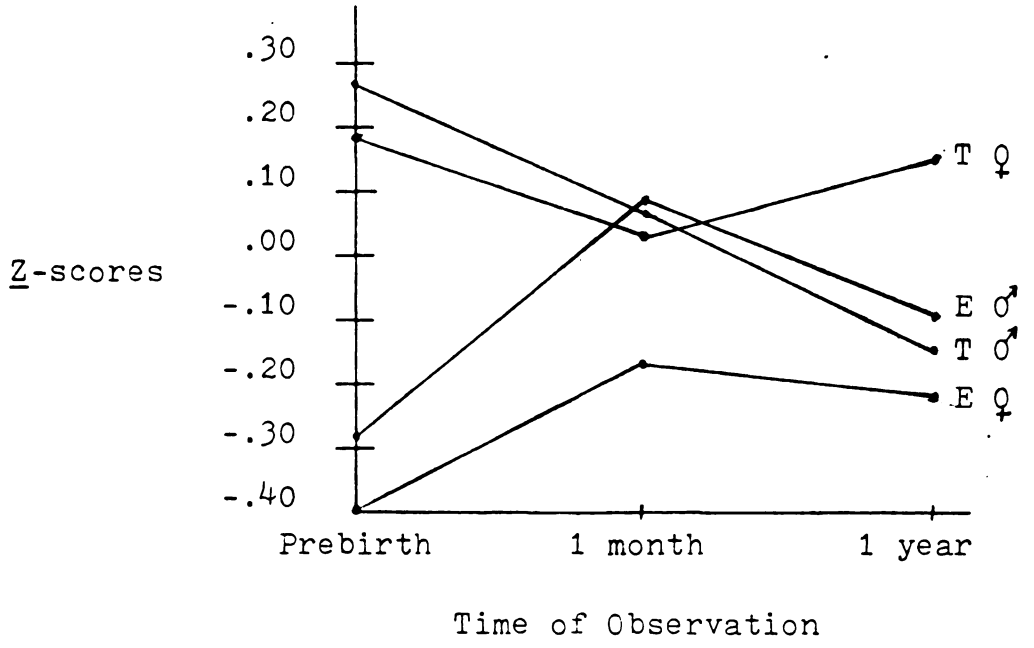
influenced by the educational approach and/or the experience of beginning parenthood while couples with very low marital satisfaction experienced the opposite effect. Or perhaps those couples at the extremes merely regressed toward the mean. There was no clear evidence that either of these conjectures was more probable than the other.

Figure 3 shows marital adjustment by treatment group and sex for those 17 couples with data from all three observations. For the combined Communication/Decision-Making/Marital Adjustment (CDMA) scale, E husbands and wives increased from prebirth to 1 month while T husbands and wives decreased. The same changes occurred to a lesser degree from prebirth to 1 year.

A similar trend emerged when Spanier Dyadic Adjustment Scale scores were averaged at each observation time for all subjects with data at the time of observation (see Figure 4). Once again, from prebirth to 1 year, T husbands and wives decreased slightly in marital satisfaction while the E subjects increased. In addition, from prebirth to 1 month, T decreases and E increases were even more marked for both sets of data. Thus, data trends, while not significant, did support the first hypothesis that psychologically oriented prenatal education can promote more positive postbirth marital adjustment than physiologically oriented education.

FIGURE 3

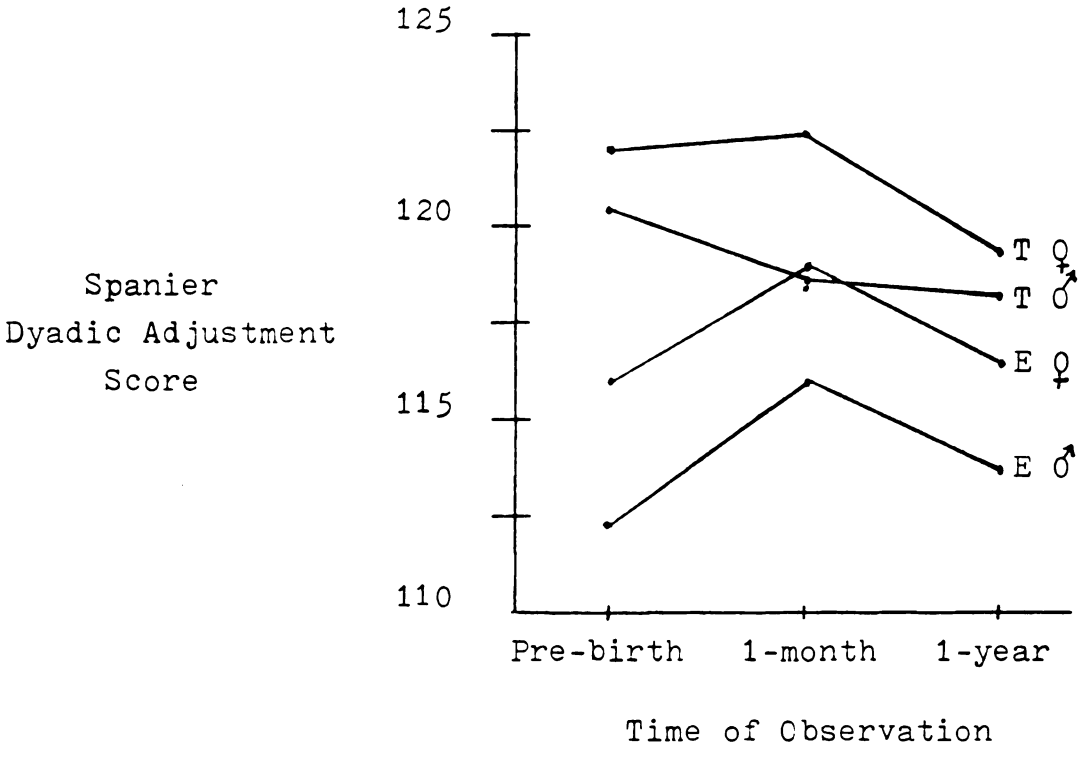
Average Z-Scores on
Communication/Decision-Making/Marital Adjustment (CDMA) Scale
for Couples with Complete Data*



* for T, N = 9; for E, N = 8

FIGURE 4

Average Spanier Dyadic Admustment Scores
for all Data Collected at each Observation*



* N's, ranging from 16 to 27, waried with time of measurement, treatment group and sex.

Comparability of Treatment Groups

In spite of random assignment to treatment, several statistically nonsignificant trends were noted in the pretreatment measures. These included tendencies for couples receiving physiologically oriented education (T) to view their own parents more positively, to view their marriages as having more traditional roles, and to display higher levels of marital adjustment than did E couples. All of these trends likely worked against confirming the stated hypotheses. First, as parents tend to raise their own children in the way in which they themselves were parented, one would expect those parents with more positive views of their own parents to have felt more positively toward themselves in a parenting role. Hence, this attitude toward their own parents may have promoted a more positive parenting self-concept for T parents. This positive self-concept could have generalized to outcome measures of perceptions of children and spouses. Second, marriages having traditional roles, as compared to those with a companionate style, were found by Feldman (1971) to be more likely to increase in marital adjustment following birth. The addition of children was postulated to create an opportunity for more role fulfillment for the wife. Note that T wives, with their more traditional view of marital role, were the only group that increased in Spanier Dyadic Adjustment scores from 1 month to 1 year postbirth (review

Figures 3 and 4). Thus, again, the tendency toward a traditional role in T couples would have worked against the hypothesis that couples receiving psychologically oriented education would experience better postbirth marital adjustment. And finally, higher pretreatment marital satisfaction scores for T subjects decreased the possibility of E couples surpassing the T high scores at postbirth. Thus, all tendencies toward differences in treatment groups prior to classes may have hindered establishment of significant posttreatment differences.

Design Difficulties

A major drawback in the present research design was the absence of a true control group. Both treatment groups requested and received prenatal education classes. The couples, by seeking prenatal education, behaviorally demonstrated a belief that information could assist them in coping and a value of preparing for future events. Participation in any prenatal education program (or merely the intent to do so) may have been enough to stimulate forethought and planning for coping effectively with a life change.

According to the literature review, middle-class couples would be expected to decline in postbirth marital satisfaction as compared with prebirth measures; however, the present research did not find a significant decline in marital

satisfaction for couples receiving prenatal education of either a medically oriented or psychologically oriented nature. Review of Figures 3 and 4 shows, except for T wives, a decline in marital satisfaction from 1 month to 1 year. The fact that these trends were inconsistent and statistically nonsignificant may indicate that parents who chose to attend prenatal classes, compared to the general population of those not seeking prenatal education, were somewhat better prepared to adapt after birth regardless of the nature of their classes.

Extent and Timing of Treatment

Many factors may have weakened the impact of the innovative psychologically oriented training program. Ten 2-hour classes (or more accurately, the six to eight class periods attended by the typical couple) may have been insufficient time to cause significant behavioral or attitudinal changes. Furthermore, the maximum class time originally planned to be devoted to psychological aspects of pregnancy and parenthood was 9 hours (less than 50 percent). In practice, unfamiliar psychological materials were often condensed, reduced or even eliminated by instructors when faced with time pressures.

The timing of an educational program so that its audience is maximally receptive to materials may be crucial. At the time of expectant parent classes, couples' concerns,

as elicited through agenda-gathering during the initial class period, were focused mainly on the whys and hows of labor and delivery and the physical well-being of infant and mother. In fact, of the 102 mothers and fathers interviewed immediately after birth, 67 indicated that preparation for labor and delivery was the most helpful part of their classes and/or that they would have liked to spend more class time on that area. Only two parents would have preferred less time on the topic. Furthermore, 20 of the 49 E parents made negative remarks about decision-making or relationship-oriented class content, suggesting less of that content and/or stating a dislike for it. Only nine parents requested more family-oriented material or viewed it as a significantly helpful part of the class. Negative comments ranged from a belief that couples should have worked-out personal problems before becoming pregnant to comments that the instructor did not have the background to teach those skills or was uncomfortable and presented this material unclearly. One father felt that the emphasis on the change in the marriage made couples more apprehensive--he would have preferred more positive classes.

After birth, in the midst of many life-style changes, couples may have been more receptive to information on emotional adjustment to beginning parenthood. For example, one mother laughed when asked what she would leave out of the classes and then commented that while attending classes,

she felt family relationships should not be included. She then added that after birth she had recognized the value of the topic. In a 3-month follow-up of 29 primiparous and 19 multiparous couples who had attended prenatal classes, Tiedge (1978) found 70 percent reporting that relations with their spouse were strained, different or not going well. The overall tendency for most subjects to decline in measures of marital satisfaction from 1 month to 1 year after birth (review Figures 3 and 4) would also indicate that research subjects for the present study experienced increased postnatal stress. Further support for higher postnatal receptivity to psychological issues can be found in the final interview when parents were asked if they would have been interested in attending a discussion group for new parents after birth. Of 78 parents interviewed, there were 39 "yes", 16 "maybe", and only 17 "no" responses (6 parents were not asked). Parents were asked when such a group would optimally be offered, and a wide range in child's age (from newborn to 3 years) was suggested. Responses clustered at birth to 3 months, 6 to 7 months, 1 year, and 2 1/2 years. While "discussing parenthood" is certainly a less emotion-laden topic than discussing family relationships, the two areas could be expected to interact with each other. In any case, the vast majority of research parents identified their needs and difficulties with regard to parenting as being subsequent to the first 6 months of the child's life.

Thus, with regard to timing of material, these expectant parents appeared most receptive to learning about labor and delivery--an unknown and imminent event. After birth, as their child matured, parents became increasingly preoccupied with the parenting role (and probably with more psychological, family-oriented issues). Therefore, a prenatal class may have been an inappropriate time to expect couples to be receptive to psychologically oriented materials.

Presentation of the New Program

Another major variable concerned the discomfort of instructors in presenting the new program. All instructors expressed or displayed discomfort when presenting information about declining marital satisfaction after the birth of a child or the negative aspects of parenting. One wrote, "I felt very uncomfortable presenting such negative facts to the couples re: parenting and the marital relationship. I think class #10 ended on a positive note...but I felt strongly the anxiety from the couples when the negative aspects were discussed." The cause of her discomfort was verbalized by another instructor who said, "I don't like to tell them bad news. This is supposed to be a happy time in their lives."

This discomfort persisted despite the instructors' expressed commitment to the rationale behind such information. Of 18 comparisons of the two approaches which were collected

from the five instructors at various times during their participation, 14 placed the psychologically oriented E approach as somewhat better or far superior to T; three were neutral; and one classed the traditional approach (T) as somewhat better. (This last instructor later rated the E program higher.)

The conflict felt by instructors in their attempts to present new, sometimes anxiety-provoking, material to which they had expressed a commitment is also clear in the following series of quotes from one instructor's evaluation reports. (The first quotes are as she taught the psychologically oriented curriculum.) "The whole presentation has me up-tight and I realize the tremendous amount of studying and rehearsing that will be necessary..." "The decision-making process has me stumped and I am apprehensive with regards to presenting something I don't 'own' yet. Wish we could modify it." (The next quotes are after finishing the new curriculum and while teaching traditional and familiar content.) "The modified program was difficult to incorporate into my own words. It definitely put a lot of pressure on me as an instructor. I understood the basic concepts but the presentation of the materials did not flow easily and I felt the couples perceived it also." "The idea of communicating with each other as a couple is an important issue... I feel bad I can't let them know about the stresses currently in their life and the ways we feel one can cope with them."

Given both the instructors' discomfort with and the parents' negative reactions to the more psychologically oriented material, an interaction may be hypothesized with instructors presenting material with low self-confidence, parents reacting negatively to the material, instructors then feeling even less comfortable, etc. The spiral effect created by such an interaction would certainly have obstructed a positive, effective exposure to E class content.

Discussion of Post Hoc Analyses

Two major trends identified in the post hoc analyses provided further substantiation and extension of Feldman's (1971) short-term, longitudinal findings. He found positive marital adjustment at 5 weeks and 5 months post-partum to be related to a traditional marriage style and to a negative perception of pregnancy. The finding of the present research further substantiated Feldman's evidence by correlating positive change on a well-validated, multi-item marital adjustment scale with husbands' and wives' prebirth variables. At 1 month both husband and wife were likely to experience more positive marital adjustment if they had viewed their relationship in a traditional role style. At 1 month for both husband and wife, and at 1 year for the husband, marital adjustment related <u>inversely</u> to perceptions of general well-being during pregnancy. Thus, the present data extended Feldman's finding to the father as

well as the mother. A discussion of these two relationships and the remaining findings of the regression analyses follows.

Human perceptions of well-being are usually relative to the conditions surrounding them. The degree of general life satisfaction perceived by a person at any given time may be directly dependent on the level of satisfaction existing just prior to that time. Hence, an inverse relationship between positive pregnancy attitudes and post-birth attitudes is understandable. The expectant parent who prized pregnancy may be generally more disappointed by the stresses of beginning parenthood than the parent who had a less pleasant pregnancy experience. This phenomenon may be especially applicable to the first-time mother who may have received deferential treatment and special nurturance from her family and social group during her pregnancy. The woman who particularly enjoyed that special care, for whatever reason, is faced with the opposite circumstances when she must nurture her own child and when her family and husband turn their attention to the newborn.

Still missing is information concerning couples' level of marital adjustment and general well-being before pregnancy. Do couples become pregnant in an attempt to correct an already unsatisfactory situation? If so, their very positive reaction to pregnancy may be a result of renewed hope which would likely turn to disillusionment

under the stresses of beginning parenthood. On the other hand, high pregnancy satisfaction could be simply a continuation of pre-pregnancy dyadic adjustment which is disrupted by the intrusion of a baby.

The present research found a positive relationship between a traditional marriage style and postbirth marital adjustment. A traditional marital relationship is one in which the role expectations establish the wife as primarily responsible for home management and child-care while the husband provides financial and physical resources for the family. This contrasts with a companionate marriage style in which the husband and wife tend to share the same tasks and roles and to value this shared orientation over well-delineated, separate roles. In the case of a traditional-role marriage, the wife's role is incomplete until she has children to care for. Hence, both husband and wife might be expected to find their marriage more congruent with their role expectations, and therefore more satisfying, with the birth of their first child.

Additionally, the regression analyses revealed a tendency for father's postbirth marriage adjustment to be related to prebirth decision-making adjustment. If fathers are expected to articulate with the larger society for their families, decision-making may be an important aspect of that role. A smoothly functioning prebirth decision-making procedure should be an asset which carries over to the

postbirth period, thus enhancing the husband's satisfaction with his family life. Conversely, unsatisfactory decision-making prior to birth may deteriorate further under the added stresses of the new postbirth roles.

It is surprising that no pretest item significantly predicted change in the wife's marital adjustment at 1 year after birth. One might postulate that a new mother experiences much more change in her family role than does her spouse, since she usually is the parent assuming most responsibility for infant care. (This postulate is supported by the research variable which came close to significance, $p \leq .068$, as a predictor of more positive marital adjustment, i.e., the wife's expectation of great change in her emotional and sexual relationship with her husband.) Most likely the marital relationship does indeed change, and the wife's anticipation of that change can contribute to her adjustment. But that change may be based on so many individual characteristics that its direction and magnitude are unpredictable. For example, the new mother's family and life goals would be expected to contribute to her adjustment. Does she value the parenting role as a life goal? Her own developmental stage would affect adjustment. Has the new mother established her identity separate from that of a mother or wife? Her relationship with her own mother (the parental model) may come sharply to the foreground. Do old childhood conflicts

return to haunt her as her baby grows? The list seems endless, making the levels of adjustment varied and unpredictable.

The additional relationships identified by the regression analyses rest on the slender thread of single questionnaire items. Thus, they offer a weaker base for speculations and, in some cases, are difficult to rationalize.

It is understandable that the husband's marital satisfaction at 1 month related positively to the degree to which he expected the baby to change his sleeping and eating habits. Even in a marriage where the wife provides the majority of child-care, a new baby would be likely to disturb the sleeping habits of the rest of the household, and to the extent that the infant's needs disrupt the mother's usual routines, she might be unable to keep meals on schedule. Getting meals may be symbolic of having needs met for the husband. In any case, his anticipation of such changes would help him better adjust without blaming his wife and experiencing subsequent loss in marital satisfaction.

The remaining two relationships are not so obvious. Why would the husband's marital change have been <u>negatively</u> related to how well he thought his wife's parents did raising her and to how satisfied his wife was prenatally with her job situation? Regarding the latter relationship,

if the wife's prenatal employment satisfaction is indicative of her over-all job satisfaction, then the birth of a child for the satisfactorily employed woman may interfere with her job situation and diminish her related sense of self-esteem after birth. For the woman who dislikes her job, the baby provides relief from the job plus an alternative source of self-esteem (motherhood). In this study, then, the husband's marital adjustment at 1 year may have been a reflection of his wife's general satisfaction with her role at that time. If this were true, a similar relationship would have been unlikely at 1 month simply because most mothers did not expect to be employed that soon after delivery.

A violation of the husband's expectations may explain the relationship identified between his perceptions of his wife's parents and his marital satisfaction at 1 month. Perhaps the husband who sees his wife's parents very positively expects similar excellence from her and is disappointed by her inexperience and inability to live up to his expectation, particularly during the disruptive period immediately following birth. Similarly, the husband expecting poor performance from his wife may be pleasantly surprised by her unexpected adequacy. Disappointment or pleasure at a spouse's abilities would likely be reflected in the husband's marital satisfaction.

In summary, post hoc analyses generally supported earlier studies which showed a positive view of pregnancy

and a companionate marriage style to be related to lower marital satisfaction in the initial postbirth year. New evidence showed the father's postbirth adjustment to be related to satisfaction with decision-making procedures--another potential support for the importance of traditional family role expectations--and to his expectation of disruption in sleeping and eating patterns. The new mother's 1 year postbirth adjustment was less predictable.

Overview of Research

At this point, a brief chronicle of the events involved in this research may give the reader some perspective on the complexity of longitudinal, exploratory research as well as some issues and problems specific to this study.

Formulating the Problem

I became interested in the area studied for both professional and personal reasons. Professionally, an interest in preventive mental health was the end result of several years of clinical training. The necessity of producing a research-oriented dissertation for completing a doctoral program was a further pressure which could not be ignored. Personally, I had reached a decisive stage in my own life cycle with regard to childbearing and parenting. This led to informal observations of other couples in the process of integrating children with their families and lifestyles.

My further interest in beginning parenthood was greatly stimulated by beginning a literature review which increasingly indicated potential major difficulties for the couple adjusting to the birth of a child. Contrary to popular social myths, instead of adding joy to the marital relationship, the advent of children appeared to decrease marital satisfaction! The question which began to form, then, was whether some type of preventive action might lessen the effects of beginning parenthood on marital satisfaction. The feasibility of investigating the question immediately rested on a long-term research commitment and on accessibility of a subject pool.

Locating Subjects

A ready-made, easily accessed population was thought to be available through prenatal education groups. Accordingly, the two local groups, The Association for Shared Childbirth (ASC) and the Expectant Parent Organization (ExPO) were contacted. An ASC representative was discouraging. She gave no indication of support for integration of preventive materials with the prenatal classes themselves. She further pointed to the poor attendance of their postbirth presentations. The ExPO president, on the other hand, was enthusiastic about using the prenatal classes as a preventive treatment. She had been informally discussing similar changes with a professor

who had recently become a father. They had been considering such classroom strategies as presenting more realistic, balanced pictures of parenthood and providing decision-making and stress reduction techniques to expectant parents. Thus, serendipitous timing provided a potential source of subjects and the impetus to progress to considerations of measurement and design.

Use of a control group was a major design difficulty in this research. A "true" control group in the present study would have consisted of parents who asked for prenatal education, were unable to obtain it, and were willing to participate in the follow-up. This might well have produced a source of error since highly motivated couples would have undoubtedly sought education elsewhere (through other prenatal groups and reading). They then would have become prenatally educated "false" controls or would have had to be dropped from the control group. Either option would have altered the composition of the control group making it no longer comparable to the treatment group. In addition, the type of couple who would have volunteered for research follow-up after being refused education would have differed from the volunteer couple that knew it would receive education. Even if the preceding were not the case, differential drop-out rates would have been likely, with couples who were refused education being less motivated to complete the follow-up. And finally, given ethical and

financial concerns, the Expectant Parent Organization, out of its own commitment to prenatal education, would not have cooperated with research proposing to turn away a portion of its applicants.

If the difficulty in recruiting a "true" control group was fraught with problems when the initial subject pool was to be gathered from the same source (i.e., couples requesting prenatal education), the difficulties in recruiting a control group comparable to the treatment group from another source appeared insurmountable. Accordingly, the present research was conducted as a comparison of two different types of educational treatment, one which covered the more usual prenatal topics of identifying and coping with physiological changes during pregnancy and birth and one which replaced some physiological content with methods for identifying and coping with emotional changes. The fact that all subjects received some treatment likely lessened the overall differences between groups on outcome measures, thus making statistically significant results less likely.

Designing the Experiment

The details of the experimental design have been presented in the methodology section. A rigorous experimental design requiring random subject assignment, assessing possible effects of exposure to testing procedures, and alternating instructors' assignment to treatment groups was selected to insure the strength of any findings.

Identifying Variables for Measurement

Next identification of specific hypotheses and methods of measuring outcome were considered. Marital satisfaction, along with change or the degree of crisis experienced, had already been clearly identified in the literature review. Other outcome measures were chosen to examine the impact of specific content areas in the revised curriculum. These included decision-making processes, extent of communication, attitudes toward baby, expectations of the spouse's role and sexual adjustment. Only in the area of marital satisfaction did a well-validated measure already exist--the other scales required construction. It should be noted that the additional outcome measures were often selected based on the interests and needs of the cooperating persons in ExPO. In research requiring such extensive commitment and cooperation, involvement of personnel in planning was considered crucial. This became even more obvious as the research progressed.

Methods of collecting the data and timing of the observations were the next concern. A forced-choice questionnaire was selected as it could be sent and returned by mail. It also facilitated the administration of the Spanier Dyadic Adjustment Scale as part of its contents. As less structured information would be valuable in an exploratory study, semi-structured interviews were also chosen. They allowed the flexibility required to gather spontaneous responses and unexpected information while still "guiding"

the interview content so that similar areas were addressed by all couples. Undergraduate psychology students provided a potential source of interviewers. While face-to-face contacts may have provided more nonverbal information, the feasibility of transporting interviewers or motivating parents to transport themselves to such interviews was low. Consequently, telephone interviews were selected as an acceptable medium. Such interviews avoided transportation difficulties and also provided parents with a somewhat anonymous situation for self-disclosure. Times for measurement were selected such that the first postbirth observation might gather data on reactions to the crisis while it was still occurring or fresh in the parents' minds. One year was thought to be a time by which full adjustment to the role change would have occurred and parents might have a perspective to share about their adjustment.

Of course, the issue of control of extraneous variables raised its head. Several sources of uncontrolled effects which might influence outcome measures included: (a) personality and history of the subjects, (b) human resistance to change and reaction to unmet expectations as a result of the new curriculum, (c) classroom variables including instructors' attitudes, (d) differences in interviewers, and (e) characteristics of the new baby. As these variables could not be directly controlled, except perhaps by matching, which causes other difficulties, they were monitered; and random assignment of subjects was retained

as the tool for initial equalization of treatment groups. The effects of unpredictable human variability were a constant concern, and as already noted, those effects on this research could not be adequately controlled.

Maintaining the Relationship with the Sponsoring Organization

Cooperation of ExPO instructors was critical to the success of this study. Good management techniques dictated that involvement of instructors in planning would have increased their commitment to presenting new class content and evaluating its impact. While participation and input were solicited from instructors, most did not actively participate. Reasons for nonparticipation were varied. Instructors were paid by the hour for classroom time. They were not reimbursed for nonclassroom activities such as preparing materials or attending curriculum meetings. Furthermore, instructors had already been becoming resentful of the extra demands ExPO was placing on their time even before introduction of the research. Consequently, in spite of efforts to solicit instructor input, only three highly committed nurses were actively involved in designing the new curriculum.

Meanwhile, intensive ongoing efforts focused on the development of two parents' manuals and curriculum guides for standardization of educational treatments. The three interested instructors (including the organization president), the professor mentioned earlier, and myself

were involved in those efforts. I had to rely on the three instructors to design teaching materials and lesson plans for the traditional physiological information. As this material was familiar to all ExPO nurses, the three instructors relied on brief outlines and explanations obtained from old instructors' guides to construct their materials. To make psychological content less threatening, I produced a detailed teaching guide for those class sessions. This limited instructor involvement in developing unfamiliar psychological curriculum contributed to major problems during the instructor training session outlined in Appendix E (p. 134). Extensive, detailed guidelines for presenting psychological information dwarfed the terse, informational outlines provided for physiological content. Additionally, training content for the instructors' workshop focused mainly on unfamiliar topics--of course, the new emotional-relational content. Consequently, instructors attending the workshop found themselves faced with what appeared to be an overwhelming amount of new content and very little familiar material. Resistance to the new material was heightened by this discrepancy. Furthermore, some instructors were highly committed to particular content areas, e.g. breast-feeding, labor and delivery exercises, etc., which they felt were slighted by the new approach. Hence, although the original plan had been to try to convert all instructors to the new content and new parent manuals, the end result of the

workshop was four instructors who volunteered to teach the new content and old content one time each for the research.

Locating Funds

Funding supports were necessary to defray typing and printing costs of the parent manuals, to provide instructors with pay incentives for participation in training, and to pay postage and supply expenses for the questionnaire and interview follow-up. Support of the Michigan State University Cooperative Extension Service was gained for typing and printing of parent manuals. The Ingham County Board of Commissioners provided grant funds for postage, instructor re-imbursement, and printing supplies. The Michigan State University Department of Psychology provided envelopes, stencils and paper for the questionnaires and interview forms. All of these contacts required time and paperwork. Given multiple funding sources, it appeared to be advantageous to be able to demonstrate cooperation from other funding groups to any potentially resistant source.

Conducting the Treatment

Classes began with high levels of anxiety on the part of instructors. The degree of tension can best be described by the behavior of one instructor 15 minutes before her new class was to begin. She was nearly frantic about whether all the materials were there, whether her class would respond, and whether she could adequately provide leadership

for group discussion. The surprising aspect was that this teacher was the only one who had always led her class in a discussion style in the past and who, for scheduling reasons, was not involved in the research. Her reaction was typical of research instructors and may have been an outlet for more extreme tensions which they were unable to express directly.

Samples of class sessions were observed from behind a one-way mirror. Classroom atmosphere, unexpected classroom events, and deviations from curriculum were recorded in a log book. This provided opportunity to at least moniter some of the many uncontrollable human factors already mentioned above.

Collecting Data

As the beginning of data collection approached, interviewers were recruited and trained. Interviewers proved themselves to be conscientious and enthusiastic for the most part; however, they required monitering to see that they completed their assigned interviews and that their interviews covered the designated areas. For the latter, it was sufficient to assign occasional joint interviews in which one interviewer listened to another's call and provided feedback. To insure interview completion, it was necessary to maintain regular contact with each interviewer regardless of how reliable that interviewer seemed. One interviewer, after 8 months of consistent work stopped

interviewing and did not inform me of her difficulties until it was too late to collect the remaining data. Finally, I was available by phone at any time the interviewers initiated contact. These phone contacts proved helpful in allowing interviewers to review their own skills and approach and also in providing support after a difficult interview. Difficult interviews ranged from the minor case of a resistant interviewee to more extreme cases of spontaneous abortions of the current pregnancy or revelations of rather severe emotional difficulties by the interviewee.

The task of data collection was arduous. First, the birth of the child had to be identified. In addition to relying on parents to send postcards as notification of the birth, newspaper birth announcements were read and phone contacts initiated if the due date was several weeks past. Once the birthdate was known, questionnaire mailings and interviews were attempted. Suddenly parents found they had little time to complete the observations. Parents complained about the repetitiveness of questionnaires. They also claimed insufficient time. Delinquent questionnaires were followed by one or two postcard reminders and in some cases by a phone call.

Interviews were more readily completed as many of the parents enjoyed talking about their experiences in great detail. This was less true at the 1-year follow-up; however, the majority still loved to talk! This is not to imply that scheduling and completing the phone interviews was easy.

Often parents were very busy, were difficult to reach at home, and had trouble scheduling a convenient interview time. In addition, the interviewers themselves were influenced by time pressures as well as by personal reactions to some parents. Accordingly, interviewers were aked to write a brief description of their reactions to each interview and interviewee.

Analyzing Data

Analysis of the more structured questionnaire data was relatively straightforward as answers were transferred directly to computer forms. Classification of the open-ended interview data was a complex task. Initially, an attempt was made to create general categories of responses to each open-ended question. Responses were so varied, however, that the number of categories often reached 20 to 30 per question, making this process too unwieldy. Eventually, interview data were classified primarily on 2- or 3-point scales--either yes-no options or classifications such as none-some-great. For example, a parent's answers were classified as indicating "a great deal of", "some" or "no" concern about finances. Even though inter-rater reliability was possible under these circumstances, the valuable variability of the unstructured responses was drastically reduced. In the final analysis, use of interview data was avoided. That wealth of information remains untapped.

Finally, a full 3 1/2 years after the initial steps were taken in this research, as the data analysis and writing draw to a close, the time-consuming nature of the study becomes inescapable. The would-be researcher may adequately assess his/her commitment at the beginning of a project, but it is unlikely that accurate judgements of time and effort can be made. In a society changing as rapidly as ours, it may even be difficult to predict that the researcher will wish to continue at the same job or residence for the duration of a longitudinal study. Unpredictable life changes may occur for the researcher, just as they influence the subjects of the study. (I had first-hand experience of beginning parenthood while still analyzing data.) Even an intense interest in the topic is likely to become satiated and change to other areas over a long period of time. However, the work can be challenging and the findings fascinating even without the blessings of statistical significance.

A sense of humor can help, and it is in this vein that several of Murphy's Laws (Dickson, 1979, p. 123) are offered for the reader's enjoyment:

"If anything can go wrong, it will;

"Nothing is ever as simple as it seems;

"Everything takes longer than you expect:

"If you see that there are four possible ways in which a procedure can go wrong, and circumvent these, then a fifth one, unprepared for, will promptly develop; and

"Nature always sides with the hidden flaw."

Suggestions for Future Research

It is difficult to document the prevention of poor mental health. Without even beginning to address such thorny issues as the components of positive mental health and their measurement, how does one prove that something missing would have been present had it not been for a brief experimental manipulation? Yet, this is the task for preventive mental health efforts; and if we are not prepared to abandon preventive programs as a method for positively impacting adjustment to developmental crises, more research is necessary: (a) to better understand the process of adjustment, (b) to refine programs, and (c) to justify the continuation and expansion of prevention efforts. Some suggestions for future research follow.

First, large subject pools are preferable if statistically significant changes are sought. The use of a power test (Cohen, 1969) will inform the researcher of the numbers needed. Larger subject pools will further increase the success of random assignment in equalizing groups before treatment. If large samples are economically unfeasible, pretesting, if it is used at all, should be applied to all subjects in order to moniter similarity of groups before starting treatment and also to provide increased statistical power through a repeated measures design. Furthermore, an argument can be made for the value of more intensive

observation of fewer subjects without aiming for statistical differences. In this case, trends within smaller samples might provide important information at less expense.

Second, subject drop-out should be carefully considered in advance and efforts made to reduce it. These might include minimizing the amount of time required of subjects during posttesting and/or maximizing the subjects' commitment to, or rewards for, completion of the research. Rewards might take the form of money, feedback, or subjective gains such as increased self-awareness or ability to talk to an interested person about an important topic. By fully informing subjects of the details of their participation, some drop-outs may be eliminated prior to participation. If very few people decline to participate in an extensive longitudinal study, perhaps the information being offered to them is insufficient for adequate evaluation of their commitment. In that case, information about participation should be expanded and/or the commitment involved emphasized.

Assessment techniques must be carefully selected both for their ability to tap characteristics which directly reflect an effective intervention and for sensitivity to subtle differences. For example, if an intervention is aimed at increasing the amount and quality of interaction between a parent and child, a tool measuring the amount and quality of interpersonal interaction through direct observation is preferable to one measuring possible secondary

effects such as changed parental attitudes or gains in the child's developmental quotient.

In the event that a new technique is to be compared to an old and established one, time should be allowed for the new technique to be piloted and to become comfortable for its administrator and its receiver. (This strategy might also reduce the magnitude of any Hawthorne effect.) In the present research, the new educational program was neither comfortable for the instructors nor expected by the parents. Had instructors been allowed to teach the material several times before running subjects, or had psychologically trained co-instructors been employed, the materials would likely have been presented more confidently. Also perspective parents might have heard through informal or formal communication that the content of the class had been expanded, thus changing their expectations. Additionally, experimental studies might be aimed at finding means for modifying instructors' information and values and assessing the effect of instructor attitude change on teaching style.

Finally, timing of an intervention so that the recipient is aware of its value is likely to enhance the intervention's success. This is particularly difficult in preventive programs since, by their very nature, they often occur before a need is clear to the recipient. Thus, the patient may be more receptive to learning about dental floss after several painful hours in the dentist's chair. In the

case of the present research, postbirth education experiences might have better met the above qualifications if parents had been approached as they were experiencing new difficulties and needs. The first step would be to identify timing and patterns of increased stress for parents. Then at a time when levels of stress are rising, neighborhood-based parent groups could be initiated or home visitors might call on the family.

An alternative to changing the time of the intervention is to heighten the recipients' perceived need for it. In the present study, this might have been accomplished by increasing the expectant parents' awareness through contact with and observation of beginning parents and their emotional difficulties. Other potential tools would include presenting the findings of this and other research and utilizing related classroom role-plays. Modes of intensifying perceived needs might be assessed for their relative ability to impact subjects.

The would-be researcher in this complex area should be forewarned of the massive amount of time and energy necessary and the likelihood of minimal immediate rewards. Even though the researcher may feel realistically prepared to face the difficulties, estimates of the necessary commitment are likely to fall short of reality. Perhaps the undertaking should be viewed as a developmental task similar to beginning parenthood--even the informed parent is

still surprised by the task's enormity. On the other hand, just as parenthood is an inevitable part of biological continuation, so is longitudinal research invaluable to the understanding of psychological development.

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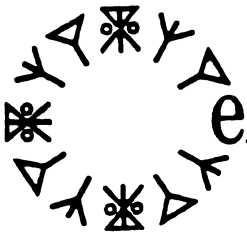
APPENDIX A

Introductory Letter

APPENDIX A

Introductory Letter



expectant parents' organization

August 5, 1976

Dear Expectant Parents,

We are currently revising our program and assessing its ability to help parents adjust to the pregnancy and birth of their first child. In order to do this, we will be surveying and interviewing a number of parents who are enrolled in our program. On the basis of the parents' responses, we will be able to modify our present program so that it better meets the needs of couples who are expecting a child.

As you are no doubt aware by now, pregnancy and beginning parenthood are times of many feelings and changes. Your participation in this survey will help us to better understand the adjustments necessary in becoming parents so our program can provide information which will be helpful in dealing with the first few months of parenthood.

Those parents who participate will be contacted on separate occasions before and after their child is born. The survey should require only 20 to 30 minutes to fill out a questionnaire and 15 to 20 minutes in a telephone interview for each of the contacts.

This assessment is being conducted through the cooperation of Expectant Parents' Organization and the Michigan State University Cooperative Extension Service. It has been funded by the Ingham County Board of Commissioners.

Before your assignment to an expectant parent class, you will be contacted concerning your willingness to participate in the survey. This will allow your questions about the study to be answered and will aid us in assigning you to a parent education group. Your participation should not only prove helpful and thought-provoking for you as a family but also will serve to help later couples in their pregnancy and parenthood. Results of this survey will be made available to you upon its completion if you wish to see them.

Your cooperation is vital to the success of this program. All responses will, of course, be confidential. Naturally, you are free to choose not to participate; however, if you do so decide, we ask you to indicate that decision when you are first contacted within the next couple weeks.

Thank you for your cooperation,

Carol Ducat

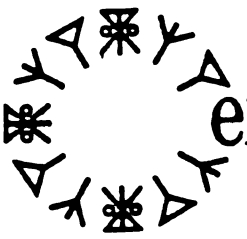
2620 montego • lansing, michigan 48912

APPENDIX B

Research Contract

APPENDIX B

Research Contract



expectant parents' organization

Expectant Parents' Organization maintains a philosophy of parent participation in its programs and planning. The cooperation of expectant and new parents in honestly sharing their experiences and reactions is essential to the success of this philosophy. Those parents participating in this feedback procedure can expect to experience the satisfaction of helping later beginning parents. More importantly, as a result of the interviews and questionnaires used, participants should experience an increased awareness of themselves, their families, their feelings and their adjustments to pregnancy and parenthood.

This study is designed to assess expectant parent education classes. Two new classroom approaches are to be tried. Parents who agree to be available to give feedback in the program will be assigned by a lottery process to one of the new programs. The study will obtain feedback from parents about the effectiveness of the approaches and also provide Expectant Parents' Organization with additional information about the process of become a parent so that the program may be further revised to include additional relevant information. This information will, of course, be shared with other expectant parent education programs for their incorporation. In short, the over-all goal of this assessment is the improvement of expectant parent education.

The feedback process is aimed at getting your input in the following areas of family life: (1) your perceptions and expectations of your child, (2) the effects of parenthood on your marital relationship, (3) your family's decision-making procedures, (4) your communication patterns, (5) family changes and adjustments necessary for you to adapt to pregnancy and the addition of a child, (6) rewards and costs of family life.

In order to clarify our expectations of participants and so that you can better understand what to expect of us, the following agreement is made.

The expectant couple agrees to the following:

(1) Each parent will complete a questionnaire within prescribed time limits on two or three different occasions (before attending class, 3-4 weeks after birth, and 6-7 months after birth).

(2) Each parent will participate in a phone interview on two or three different occasions (before attending class, 3-4 weeks after birth and 6-7 months after birth).

(3) The expectant couple will provide relevant background information (see attached sheet).

(4) The couple will allow anonymous use of the pooled information volunteered by all couples for the purpose of providing information to other parent education programs.

(5) Each parent will complete brief classroom evaluations at the end of each class period.

(6) The expectant couple will fill out and return the enclosed postage paid card within one week of the baby's birth.

(7) The expectant couple will provide accurate and honest information.

The Expectant Parents' Organization agrees to the following:

(1) Classroom notebooks will be provided free of charge for participating parents.

(2) Information provided by expectant couples will be kept confidential and anonymous in tabulating results.

(3) Evaluation results will be provided within six months of the completion of the study to those parents who desire them.

(4) Twenty hours of classroom training will be provided for participating couples at the usual charge.

(5) Every effort will be made to schedule phone interviews at a convenient time.

The undersigned have read the above conditions and agree to them.

_____ DATE_____
Expectant Mother

_____ DATE_____
Expectant Father

_____ DATE_____
Project Coordinator
Phone: 641-6845

Please fill out the enclosed Background Information sheet and sign and date this form. Keep one copy of this agreement and the post card for your files. Return one copy of this agreement and the Background Information form to us in the enclosed envelop.

Any questions may be directed to the Project Coordinator.

APPENDIX C

Background Information

APPENDIX C

Background Information

BACKGROUND INFORMATION

Wife's Name_____Wife's Age_____

Wife's Occupation_____Wife's Race_____

Wife's level of education (circle highest year completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Wife's mother's level of education (circle highest grade completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Wife's father's level of education (circle highest grade completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Has wife ever been divorced? (circle one) YES NO If Yes, when?_____

Has wife had any previous children? (circle one) YES NO

First letter and first three digits of wife's drivers license number _____*

Husband's Name_____Husband's Age_____

Husband's Occupation_____Husband's Race_____

Husband's level of education (circle highest year completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Husband's mother's level of education (circle highest grade completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Husband's father's level of education (circle highest grade completed)

school grades: 6 7 8 9 10 11 12 — college: 1 2 3 4 MA PhD

Has husband ever been divorced? (circle one) YES NO If Yes, when?_____

Has husband had any previous children? (circle one) YES NO

First letter and first three digits of husband's drivers license number_____*

Your approximate combined yearly income:_____

How long have you been married? _____

Did you live together prior to marriage? (Circle one) YES NO If yes, how long?_____

*This is the code number which will be used to anonymously identify your responses in the future.

APPENDIX D

Course Content for T and E

APPENDIX D

Course Content for T

Class 1

OBJECTIVES:

1. To acquaint parents with other class members.
2. To acquaint parents with total program and importance of prenatal instruction.
3. To dispell superstitions and anxieties regarding development of the baby by providing factual information.
4. To give information of the maternal changes and fetal development of the first trimester of pregnancy.
5. To help expectant parents deal effectively with their feelings concerning this period of pregnancy.
6. To help expectant parents understand the importance and meaning of prenatal care.

TOPICS:

1. Introductions
2. Film - While You're Waiting
3. Conception and birth control
4. The first trimester of pregnancy

Class 2

OBJECTIVES:

1. To enable expectant parents to understand the physical changes that occur in the mother and the develmental growth of the fetus during the second and third trimester.
2. To provide information on the natural pattern of weight gain based on fetal and maternal changes.
3. To help expectant parents identify common feelings during this stage of pregnancy and explore ways of dealing with these feelings.
4. To promote understanding of the importance of nutrition.

TOPICS:

1. The second and third trimester
2. Nutrition
3. Film - Great Expectations
4. Exercises to relieve physical discomfort during pregnancy.

Class 3

OBJECTIVES:

1. To provide information relevant to the parents' choice to breast or bottle feed.
2. To encourage creativity in the choice made.
3. To encourage confidence in the choice made for infant feeding.

Class 3 cont.
TOPICS:
1. Breastfeeding
2. Bottle feeding

Class 4
OBJECTIVES:
1. To assist the expectant parents to prepare for both the physical and emotional experience of childbirth.
2. To lessen anxiety and fear of the unknown through emphasis on the normal processes of labor and delivery.
3. To alert each couple to the individuality of each labor and delivery.

TOPICS:
1. Pre-labor and plans for hospital admittance
2. First stage of labor
3. Abdominal breathing

Class 5
OBJECTIVES:
1. To assist parents in preparing for the emotional and physical experience of childbirth.
2. To lessen anxiety and fear of the unknown.
3. To practice breathing techniques for labor and delivery.

TOPICS:
1. Active phase of labor
2. Chest breathing
3. Transition phase
4. Second stage of labor
5. Third stage of labor
6. Pushing technique
7. Summary of all stages of labor and delivery

Class 6
OBJECTIVES:
1. To allow discussion of parents' concerns about labor and delivery.
2. To acquaint expectant parents with initial medical treatment of their baby.
3. To allow discussion of feelings about the father in the delivery room.
4. To acquaint couples with recovery room procedures.

TOPICS:
1. Film - Miracle of Birth
2. Fathers in the delivery room
3. Care of the infant in the delivery room
4. Recovery room

Class 7

OBJECTIVES:

1. To give parents a realistic picture of the newborn infant's appearance.
2. To identify the needs of the new mother and infant particular to the post partum period.

TOPICS:

1. The appearance of the newborn
2. The physical needs of the newborn
3. The physical needs of the new mother
4. Film - The Newborn

Class 8

OBJECTIVES:

1. To familiarize the couple with the hospital surroundings in which the birth will occur.

TOPICS:

1. Physical aspects of the hospital
2. Tour

Class 9

OBJECTIVES:

1. To provide basic information to parents regarding clothing and equipment that is needed in the care of an infant.
2. To provide information to parents as to the basic needs of an infant in the first year of life.
3. To provide information to parents as to growth and development during the first year.
4. To help parents recognize phases of adjustment of both parent and child.

TOPICS:

1. Equipment and clothing needs
2. Basic needs of the infant
3. Phases of adjustment
4. Attachment
5. Safety
6. Babysitters

Class 10

OBJECTIVES:

1. To motivate parents to explore various philosophies of parenting
2. To enable parents to cope with the stresses of leaving the hospital and assuming the roles of parents.

TOPICS:

1. Baby temperament
2. Crying babies
3. Philosophies of parenthood
4. Child discipline

Course Content for E

Class 1
OBJECTIVES:
1. To help couples recognize that pregnancy, birth and parenthood are stressful events which are representative of the many normal developmental events occurring in the family life cycle.
2. To encourage the identification of the needs and expectations of the class participants.
3. To provide a rationale and overview of the class.

TOPICS:
1. Introductions
2. Film - Adapting to Parenthood
3. The Family Change Model

Class 2
OBJECTIVES:
1. To illustrate the dimensions of the second trimester in relation to the family change model.
2. To understand that exercise is an essential element in health maintenance for mother and father.
3. To provide information and practice exercises that will help the mother reduce the discomforts of pregnancy and prepare her body for the birth process.

TOPICS:
1. The second trimester
2. Care of the pregnant body
3. Exercises

Class 3
OBJECTIVES:
1. To understand the relationship between stress, tension and pain.
2. To learn a procedure for reducing tension in the delivery room and elsewhere.
3. To learn constructive communication skills for use in preventing or reducing stress.

TOPICS:
1. Stress
2. Communications skills
3. Relaxation techniques

Class 4
OBJECTIVES:
1. To provide information relevant to breast and bottle feeding.
2. To provide practice in a decision-making model.
3. To promote the use of decision-making process when appropriate.

Class 4 cont.
TOPICS:

1. Breast feeding
2. Bottle feeding
3. Film - Breastfeeding
4. Decision-making

Class 5
OBJECTIVES:

1. To develop a better understanding of the labor process.
2. To reduce anxiety of the unknown by providing information.

TOPICS:

1. Preparation for birth
2. Plans for hospital admission
3. Signs and symptoms of labor
4. Stages of labor and delivery
5. Coaching role of the husband

Class 6
OBJECTIVES:

1. To develop a better understanding of the birth process thereby reducing anxiety of the unknown.
2. To develop skills in breathing techniques that will facilitate the birth process and also alter the mother's perception of discomfort.

TOPICS:

1. Second state of labor
2. Anesthesia
3. Forceps, fetal monitors, c/sections
4. Chest breathing, panting
5. Film - Miracle of Birth
6. Baby in the delivery room
7. Recovery room

Class 7
OBJECTIVES:

1. To facilitate an understanding of the physical, emotional, and relational changes occurring during the postpartum period.
2. To promote a positive relationship between parents and their infant through an understanding of the attachment process and knowledge of the infant's needs.
3. To provide an opportunity to review and practice breathing and relaxation skills for childbirth.

TOPICS:

1. The attachment process
2. Physical changes in the mother following delivery
3. Emotional and relational dimensions after birth
4. Preparation for childbirth skills

Class 8

OBJECTIVES:

1. To familiarize the couple with the hospital surroundings in which the birth will occur.

TOPICS:

1. Physical aspects of the hospital
2. Tour

Class 9

OBJECTIVES:

1. To sort out expectations of baby and his behavior.
2. To identify what behaviors are expected for the role of mother and father.
3. To practice decision making skills in coping with the crying baby.

TOPICS:

1. What is life with baby like?
2. What is my role as mother/father/parent?
3. Coping with crying

Class 10

OBJECTIVES:

1. To recognize that the marriage relationship is an important factor in the health growth and development of the family, including the child.
2. To promote awareness of common problems expressed by new parents.
3. To review some methods of coping with these problems through re-establishing closeness between the parents and identifying support systems outside the family.

TOPICS:

1. Common concerns of new parents
2. Re-establishing closeness
3. Outside sources of support
4. Course summary

APPENDIX E

Curriculum Workshop

APPENDIX E

Curriculum Workshop

Sept. 10, 11, 12, 1976

Friday, Sept. 10

7:30-8:00 p.m.	Demonstration on how to use new projectors
8:00-8:30 p.m.	Introduction, ground rules, schedule Carol Ducat
8:30-10:00 p.m.	Class 1 Introductions, "Adjusting to Parenthood" film, Family Change Model, Research methods and approach

Saturday, Sept. 11

8:00-8:45 a.m.	Class 2 How to relate homework assignments to second trimester
8:45-9:30 a.m.	Communication and Stress
9:30-9:45 a.m.	Break
9:45-11:15 a.m.	Continue with Communication and Stress
11:15-11:45 a.m.	Lunch
11:45-1:00 p.m.	Decision Making
1:00-2:00 p.m.	Classes 5 and 6 Labor and Delivery

2:00 p.m. (optional) preview of film "Great Expectations"

Sunday, Sept. 12

8:00-9:00 a.m.	Class 7 Hospital Stay, Attachment
9:00-9:30 a.m.	Relationship with Child
9:30-9:45 a.m.	Break
9:45-11:15 a.m.	Continue Relationship with Child Role Playing
11:15-11:45 a.m.	Lunch

11:45-1:30 p.m.	Relationship with Spouse
1:30-2:00 p.m.	Summary

APPENDIX F

Class Topic Checklist

APPENDIX F

Class Topic Checklist

ID # _____
Male Female (circle one)

Following is a list of topics which may or may not have been discussed in your class. Please check the topics which you remember covering during this ten-week series.

___ physical aspects of pregnancy
___ emotional aspects of pregnancy
___ effects of pregnancy on the family
___ family change
___ stress
___ diapering a baby
___ feeding a baby
___ bottle preparation
___ breast feeding
___ family decision-making
___ stages of labor and delivery
___ exercises for labor and delivery
___ exercises for pregnancy
___ newborn characteristics
___ baby temperament or disposition
___ parenthood
___ effects of babies on the husband-wife relationship
___ maintaining closeness with your spouse after birth
___ infant schedules
___ postpartum changes in the mother
___ nutrition
___ choosing a pediatrician
___ effective communication
___ disciplining children
___ coping with a crying baby
___ pediatrician in class as guest lecturer
___ equipping the nursery
___ child safety

APPENDIX G

Instructor Evaluation Form

APPENDIX G

Instructor Evaluation Form

CODE:_____ CLASS:_____
INSTRUCTOR:_____

WEEKLY EVALUATION

For purposes of our survey, at the end of each class, you will be asked to quickly rate your instructor based on how she presented the materials for that specific class period. Please indicate your response to the following statements by circling the word or phrase which best describes your assessment.

If you were absent for the class, please check this blank _____ and turn in the form.

Circle one: Male Female

The instructor's knowledge about today's subject was:

EXCELLENT GOOD ADEQUATE POOR

The instructor's enthusiasm for today's subject was:

VERY HIGH HIGHER THAN AVERAGE ABOUT AVERAGE LOWER THAN AVERAGE VERY LOW

In dealing with today's topics, the instructor appeared:

VERY COMFORTABLE SOMEWHAT COMFORTABLE SLIGHTLY UNCOMFORTABLE VERY ILL AT EASE

The instructor's ability to present ideas about today's topics was:

EXCEPTIONAL GOOD ABOUT AVERAGE POOR EXCEPTIONALLY POOR

CODE:_____ CLASS:_____
INSTRUCTOR:_____

WEEKLY EVALUATION

For the purposes of our survey, at the end of each class, you will be asked to quickly rate your instructor based on how she presented the materials for that specific class period. Please indicate your response to the following statements by circling the word or phrase which best describes your assessment.

If you were absent for the class, please check this blank ____and turn in the form.

Circle one: Male Female

The instructor's knowledge about today's subject was:

EXCELLENT GOOD ADEQUATE POOR

The instructor's enthusiasm for today's subject was:

VERY HIGH HIGHER THAN AVERAGE ABOUT AVERAGE LOWER THAN AVERAGE VERY LOW

In dealing with today's topics, the instructor appeared:

VERY COMFORTABLE SOMEWHAT COMFORTABLE SLIGHTLY UNCOMFORTABLE VERY ILL AT EASE

The instructor's ability to present ideas about today's topics was:

EXCEPTIONAL GOOD ABOUT AVERAGE POOR EXCEPTIONALLY POOR

APPENDIX H

Instructor Reports

APPENDIX H

Instructor Reports

Date: _____

Instructor's name: _____

Educational approach being used at present time:

___ Traditional program
___ Modified program

Please indicate your feelings of satisfaction with each of the two educational approaches by checking the best answer to complete the statements below:

At the present time, I believe the traditional educational approach to be

___ very satisfactory.
___ somewhat satisfactory.
___ neutral.
___ somewhat unsatisfactory.
___ very unsatisfactory.

At the present time, I believe the modified educational approach to be

___ very satisfactory.
___ somewhat satisfactory.
___ neutral.
___ somewhat unsatisfactory.
___ very unsatisfactory.

If I were to compare the two programs, I would say

___ the modified program is far superior to the traditional one.
___ the modified program is somewhat better than the traditional one.
___ both the modified and the traditional programs have equal merit.
___ the traditional program is somewhat better than the modified one.
___ the traditional program is far superior to the modified one.

Please make any comments about your feelings or experiences with these two programs below.

APPENDIX I

Questionnaires

APPENDIX I

Questionnaires

GENERAL DIRECTIONS FOR QUESTIONNAIRES

Enclosed are two questionnaires, one for the wife and one for the husband. It should take about half an hour apiece to fill out the questionnaires. Specific directions are included in the questionnaires themselves when needed.

It is important that you try to answer each question even though it may sometimes be difficult to decide on an answer. If you should have difficulty with a question, answer it as best you can; and if you wish, write a comment explaining your answer.

Please fill out your own questionnaire before talking with your spouse about how he/she would answer. After you have both finished your questionnaires, feel free to discuss your answers with each other if you wish. However, do not change your original answers on the questionnaire after talking with your spouse.

Return the completed questionnaires separately in the two envelopes which are provided.

Thank you

APPENDIX I

Questionnaires

ID #
pre-husb

DATE _____

HUSBAND'S QUESTIONNAIRE

PART I*

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances	___	___	___	___	___	___
2. Matters of recreation	___	___	___	___	___	___
3. Religious matters	___	___	___	___	___	___
4. Demonstration of affection	___	___	___	___	___	___
5. Friends	___	___	___	___	___	___
6. Sex relations	___	___	___	___	___	___
7. Conventionality (correct or proper behavior)	___	___	___	___	___	___
8. Philosophy of life	___	___	___	___	___	___
9. Ways of dealing with parents or in-laws	___	___	___	___	___	___
10. Aims, goals, and things believed important	___	___	___	___	___	___
11. Amount of time spent together	___	___	___	___	___	___
12. Making major decisions	___	___	___	___	___	___
13. Household tasks	___	___	___	___	___	___
14. Laisure time interests and activities	___	___	___	___	___	___
15. Carear decisions	___	___	___	___	___	___
16. Child raising	___	___	___	___	___	___

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
17. How often do you discuss or have you considered divorce, separation or terminating your relationship?	___	___	___	___	___	___
18. How often do you or your mate leave the house after a fight?	___	___	___	___	___	___
19. In general, how often do you think that things between you and your partner are going well?	___	___	___	___	___	___

Over

* Part I is mainly comprised of the Spanier Dyadic Adjustment Scale.

ID #

pre-husb

	All the time	Most of the time	More often than not	Occa-sionally	Rarely	Never
20. Do you confide in your mate?	___	___	___	___	___	___
21. Do you ever regret that you married?	___	___	___	___	___	___
22. How often do you and your partner quarrel?	___	___	___	___	___	___
23. How often do you and your mate "get on each other's nerves?"	___	___	___	___	___	___

	Every Day	Almost Every Day	Occa-sionally	Rarely	Never
24. Do you kiss your mate?	___	___	___	___	___

	All of them	Most of them	Some of them	Very few of them	None of them
25. Do you and your mate engage in outside interests together?	___	___	___	___	___

How often would you say the following events occur between you and your mate?

	Never	Less than once a Month	Once or Twice a Month	Once or Twice a week	Once a day	More often
26. Have a stimulating exchange of ideas	___	___	___	___	___	___
27. Laugh together	___	___	___	___	___	___
28. Calmly discuss something	___	___	___	___	___	___
29. Work together on a project	___	___	___	___	___	___

There are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

	Yes	No	
30.	___	___	Being too tired for sex.
31.	___	___	Not showing love.

The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

0	1	2	3	4	5	6
.	.	.	.	.	.	.
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

ID #
pre-husb

32. Which of the following statements best describes how you feel about the future of your relationship?

___ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

___ I want very much for my relationship to succeed, and will do all I can to see that it does.

___ I want very much for my relationship to succeed, and will do my fair share to see that it does.

___ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.

___ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

___ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

PART II

1. Check the response below which best describes what changes have occurred in your total family income within the last six months.

___ Total income decreased $4,000 or more.
___ Total income decreased less than $4,000.
___ Total income remained the same.
___ Total income increased only by a cost of living raise.
___ Total income increased by more than cost of living but less than $4,000.
___ Total income increased by more than $4,000.

2. Has your wife's employment situation changed as a result of the pregnancy? (circle one) Yes No If yes, describe how below.

3. During this pregnancy, how often has your wife seemed to experience physical or mental discomfort due to the pregnancy? (check best answer)

___ all of the time
___ most of the time
___ more often than not
___ occasionally
___ rarely
___ never

4. Are there regularly scheduled or usual times in your daily routine when you and your wife discuss things with each other? (circle one) Yes No

If your answer was yes, when are those times?

If your answer was yes, how often do they occur? (check best answer)

___ less than once a month
___ 1-2 times per month
___ 1-2 times per week
___ once a day
___ more than once a day

over

ID #
pre-husb

6. What is the average amount of time you and your wife spend in discussions each day? (check best answer)

____ less than 15 minutes
____ between 15 minutes and 30 minutes
____ between 30 minutes and 1 hour
____ between 1 and 2 hours
____ more than 2 hours

7. When you are faced with a decision, how often do you consult with your wife? (check best answer)

____ all of the time ____ some of the time
____ most of the time ____ occasionally ____ Never

8. Please list below any recent decisions you have made about the coming baby.

PART III

Please indicate the degree of your agreement or disagreement with each of the following statements by circling the best answer according to the key below.

KEY: SA = Strongly Agree d = disagree
a = agree SD = Strongly Disagree
N = Neither agree nor disagree

1. SA a N d SD Housework is the woman's job.

2. SA a N d SD A husband should feel obligated to help his wife if he has the time.

3. SA a N d SD Housework should be done before the husband comes home.

4. SA a N d SD The husband and wife should share in decisions concerning expenditures of money.

5. SA a N d SD All in all, my own parents did a good job raising me.

6. SA a N d SD All in all, my wife's parents did a good job raising her.

7. SA a N d SD At the present time my wife seems generally pleased with our sexual relationship.

8. SA a N d SD Adjusting to this pregnancyis a difficult experience for me.

9. SA a N d SD Adjusting to this pregnancyis a difficult experience for my wife.

10. SA a N d SD After completing this questionnaire, my wife and I are likely to discuss our answers to it.

Continue to next page

ID #
pre-husb

PART IV

Generally at the present time, how satisfied are you with each of the following? (check one answer for each item)

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied
a. You and your wife's decisions about work	____	____	____	____
b. You and your wife's decisions about parenting	____	____	____	____
c. You and your wife's decisions about money	____	____	____	____
d. You and your wife's decisions about leisure time activities	____	____	____	____
e. You and your wife's sexual relationship	____	____	____	____
f. You and your wife's conversations	____	____	____	____
g. The amount of time you and your wife spend in conversations	____	____	____	____
h. Your present job situation	____	____	____	____
i. Your wife's present job situation	____	____	____	____
j. Your participation in family decision making	____	____	____	____
k. Your wife's participation in family decision making	____	____	____	____

PART V

INSTRUCTIONS: For the following items, please check the answer which best completes the sentence.

1. As a result of my wife's pregnancy, my wife and I now
   ____ feel much closer to each other.
   ____ feel somewhat closer to each other.
   ____ feel somewhat about the same degree of closeness as before the pregnancy.
   ____ feel somewhat less close to each other.
   ____ feel much less close to each other.

2. Compared with before my wife's pregnancy, my wife and I now have
   ____ many more discussions than before.
   ____ a few more discussions than before.
   ____ about the same number of discussions.
   ____ slightly fewer discussions than before.
   ____ many fewer discussions than before.

Over

ID #
pre-husb

3. Compared with our feelings before my wife became pregnant, my wife and I can now be described as
___ much less satisfied with our present situation.
___ slightly less satisfied with our present situation.
___ about as satisfied as we were before the pregnancy.
___ more satisfied with our present situation.
___ much more satisfied with our present situation.

4. As a result of my wife's pregnancy
___ I have assumed many different behaviors and tasks from those I previously performed in the family.
___ I have assumed some new behaviors and tasks within the family.
___ I have kept the same behaviors and tasks within the family.
___ I have performed fewer of my usual behaviors and tasks within the family.
___ I have stopped many routine family tasks and behaviors.

5. Compared with how I felt before my wife became pregnant, I now feel
___ much more unsure of my ability to handle difficulties than I felt before.
___ somewhat less sure of my ability to handle difficulties than I felt before.
___ about the same amount of confidence in my ability to handle difficulties.
___ somewhat more confident of my ability to handle difficulties than I felt before.
___ much more confident of my ability to handle difficulties than I felt before.

6. Compared with how I felt before my wife became pregnant, I now feel
___ much happier.
___ somewhat happier.
___ about the same amount of happiness.
___ somewhat less happy.
___ much less happy.

7. When most decisions occur in our family,
___ one partner makes the final decision with little or no consulting of the other.
___ one partner makes the final decision after discussion with the other.
___ both partners reach the decision together through discussion and compromise.
___ our decisions are not our own but are often forced on us by outside circumstances.

PART VI

1. You probably have given some thought to what you think having a baby in the family will be like. How much do you expect the coming baby to change each of the following in your family? (Check the best blank for each item.)

	A great deal	A moderate amount	Somewhat	Very little	Not at all
a. Your relationship with your wife	___	___	___	___	___
b. Your life style	___	___	___	___	___
c. Your leisure time activities	___	___	___	___	___
d. Your sleeping and eating habits	___	___	___	___	___
e. Your sexual relationship	___	___	___	___	___
f. Your family finances	___	___	___	___	___

Continue to next page

ID#
pre-husb

2. Following is a partial list of new parents' tasks. Indicate how you think each of these tasks should be divided in your family. Check the appropriate blank for each item as you think your family should divide it.

	Husband should always do	Husband should do more than wife	Husband and wife should share equally	Wife should do more than husband	Wife should always do
a. Change baby's diapers	___	___	___	___	___
b. Launder baby's clothes	___	___	___	___	___
c. Quiet baby when it cries	___	___	___	___	___
d. Arrange for care for baby when wife must be away	___	___	___	___	___
e. Get up in the night with baby	___	___	___	___	___
f. Feed baby	___	___	___	___	___
g. Play with baby	___	___	___	___	___
h. Other tasks (please specify): _____	___	___	___	___	___

PART VII

For the following questions, make an X on the percentage line in the place which best represents your answer or opinion.

1. All things taken into account, what percentage of the time have things been going well during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

2. All things taken into account, what percentage of the time have you felt satisfied with your marriage relationship during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

3. When all family decisions for the past month are taken into account, mark the line below to indicate what percentage of those decisions you agree with.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

Over

APPENDIX I

Questionnaires

ID #
post 1-husb

DATE _____

HUSBAND'S QUESTIONNAIRE

PART I *

Most persons have disagreements in their relationships. Please indicate below the approximate extant of agreement or disagreement between you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occa-sionally Disagree	Fre-quently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances	___	___	___	___	___	___
2. Matters of recreation	___	___	___	___	___	___
3. Religious matters	___	___	___	___	___	___
4. Demonstration of affection	___	___	___	___	___	___
5. Friends	___	___	___	___	___	___
6. Sex relations	___	___	___	___	___	___
7. Conventionality (correct or proper behavior)	___	___	___	___	___	___
8. Philosophy of life	___	___	___	___	___	___
9. Ways of dealing with parents or in-laws	___	___	___	___	___	___
10. Aims, goals, and things believed important	___	___	___	___	___	___
11. Amount of time spent together	___	___	___	___	___	___
12. Making major decisions	___	___	___	___	___	___
13. Household tasks	___	___	___	___	___	___
14. Laisure time interests and activities	___	___	___	___	___	___
15. Carear decisions	___	___	___	___	___	___
16. Child raising	___	___	___	___	___	___

	All the time	Most of the time	More often than not	Occa-sionally	Rarely	Never
17. How often do you discuss or have you considered divorce, separation or terminating your relationship?	___	___	___	___	___	___
18. How often do you or your mate leave the house after a fight?	___	___	___	___	___	___
19. In general, how often do you think that things between you and your partner are going well?	___	___	___	___	___	___

Over

* Part I is mainly comprised of the Spanier Dyadic Adjustment Scale.

ID #
post 1

	All the time	Most of the time	More often than not	Occa-sionally	Rarely	Never
20. Do you confide in your mate?	___	___	___	___	___	___
21. Do you ever regret that you married?	___	___	___	___	___	___
22. How often do you and your partner quarrel?	___	___	___	___	___	___
23. How often do you and your mate "get on each other's nerves?"	___	___	___	___	___	___

	Every Day	Almost Every Day	Occa-sionally	Rarely	Never
24. Do you kiss your mate?	___	___	___	___	___

	All of them	Most of them	Some of them	Very few of them	None of them
25. Do you and your mate engage in outside interests together?	___	___	___	___	___

How often would you say the following events occur between you and your mate?

	Never	Less than once a Month	Once or Twice a Month	Once or Twice a week	Once a day	More often
26. Have a stimulating exchange of ideas	___	___	___	___	___	___
27. Laugh together	___	___	___	___	___	___
28. Calmly discuss something	___	___	___	___	___	___
29. Work together on a project	___	___	___	___	___	___

There are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

	Yes	No	
30.	___	___	Being too tired for sex.
31.	___	___	Not showing love.

The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

0	1	2	3	4	5	6
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

Continue to next page

ID #
post 1-husb

32. Which of the following statements best describes how you feel about the future of your relationship?

____ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

____ I want very much for my relationship to succeed, and will do all I can to see that it does.

____ I want very much for my relationship to succeed, and will do my fair share to see that it does.

____ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.

____ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

____ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

PART II

1. Check the response below which best describes what changes have occurred in your total family income within the last six months.

____ Total income decreased $4,000 or more.
____ Total income decreased less than $4,000.
____ Total income remained the same.
____ Total income increased only by a cost of living raise.
____ Total income increased by more than cost of living but less than $4,000.
____ Total income increased by more than $4,000.

2. Have you moved as a result of the new baby? (circle one) Yes No If yes, describe how your living arrangements have changed (e.g., moved from 1-bedroom apartment and bought house).

PLEASE NOTE NEW TELEPHONE NUMBER: _____

3. During this pregnancy, how often did your wife seem to experience physical or mental discomfort due to the pregnancy? (check best answer)

____ all of the time
____ most of the time
____ more often than not
____ occasionally
____ rarely
____ never

4. How would your wife's labor and delivery best be described?

____ very difficult
____ difficult
____ about the same as most
____ easy
____ very easy

5. Are there regularly scheduled or usual times in your daily routine when you and your wife discuss things with each other? (circle one) Yes No

If your answer was yes, when are those times?

If your answer was yes, how often do they occur? (check best answer)

____ less than once a month
____ 1-2 times per month
____ 1-2 times per week
____ once a day
____ more than once a day

Over

ID #
post 1-husb

6. What is the average amount of time you and your wife spend in discussions each day? (check best answer)

____ less than 15 minutes
____ between 15 minutes and 30 minutes
____ between 30 minutes and 1 hour
____ between 1 and 2 hours
____ more than 2 hours

7. When you are faced with a decision, how often do you consult with your wife? (check best answer)

____ all of the time ____ some of the time
____ most of the time ____ occasionally ____ Never

8. Please list below any recent decisions you have made about the new baby.

PART III

Please indicate the degree of your agreement or disagreement with each of the following statements by circling the best answer according to the key below.

KEY: SA = Strongly Agree d = disagree
a = agree SD = Strongly Disagree
N = Neither agree nor disagree

1. SA a N d SD Housework is the woman's job.

2. SA a N d SD A husband should feel obligated to help his wife if he has the time.

3. SA a N d SD Housework should be done before the husband comes home.

4. SA a N d SD The husband and wife should share in decisions concerning expenditures of money.

5. SA a N d SD All in all, my own parents did a good job raising me.

6. SA a N d SD All in all, my wife's parents did a good job raising her.

7. SA a N d SD At the present time my wife seems generally pleased with our sexual relationship.

8. SA a N d SD Adjusting to this new baby is a difficult experience for me.

9. SA a N d SD Adjusting to this new baby is a difficult experience for my wife.

10. SA a N d SD After completing this questionnaire, my wife and I are likely to discuss our answers to it.

Continue to next page

ID #
post 1-husb

PART IV

Generally at the present time, how satisfied are you with each of the following? (check one answer for each item)

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied
a. You and your wife's decisions about work	____	____	____	____
b. You and your wife's decisions about parenting	____	____	____	____
c. You and your wife's decisions about money	____	____	____	____
d. You and your wife's decisions about leisure time activities	____	____	____	____
e. You and your wife's sexual relationship	____	____	____	____
f. You and your wife's conversations	____	____	____	____
g. The amount of time you and your wife spend in conversations	____	____	____	____
h. Your present job situation	____	____	____	____
i. Your wife's present job situation	____	____	____	____
j. Your participation in family decision making	____	____	____	____
k. Your wife's participation in family decision making	____	____	____	____

PART V

INSTRUCTIONS: For the following items, please check the answer which best completes the sentence.

1. As a result of this birth, my wife and I now
   ____ feel much closer to each other.
   ____ feel somewhat closer to each other.
   ____ feel somewhat about the same degree of closeness as before the pregnancy.
   ____ feel somewhat less close to each other.
   ____ feel much less close to each other.

2. Compared with before the birth of our baby, my wife and I now have
   ____ many more discussions than before.
   ____ a few more discussions than before.
   ____ about the same number of discussions.
   ____ slightly fewer discussions than before.
   ____ many fewer discussions than before.

over

ID #
post 1-husb

3. Compared with our feelings before the birth of our baby, my wife and I can now be described as
___ much less satisfied with our present situation.
___ slightly less satisfied with our present situation.
___ about as satisfied as we were before the pregnancy.
___ more satisfied with our present situation.
___ much more satisfied with our present situation.

4. As a result of this birth,
___ I have assumed many different behaviors and tasks from those I previously performed in the family.
___ I have assumed some new behaviors and tasks within the family.
___ I have kept the same behaviors and tasks within the family.
___ I have performed fewer of my usual behaviors and tasks within the family.
___ I have stopped many routine family tasks and behaviors.

5. Compared with how I felt before the birth of our baby, I now feel
___ much more unsure of my ability to handle difficulties than I felt before.
___ somewhat less sure of my ability to handle difficulties than I felt before.
___ about the same amount of confidence in my ability to handle difficulties.
___ somewhat more confident of my ability to handle difficulties than I felt before.
___ much more confident of my ability to handle difficulties than I felt before.

6. Compared with how I felt before the birth, I now feel
___ much happier.
___ somewhat happier.
___ about the same amount of happiness.
___ somewhat less happy.
___ much less happy.

7. When most decisions occur in our family,
___ one partner makes the final decision with little or no consulting of the other.
___ one partner makes the final decision after discussion with the other.
___ both partners reach the decision together through discussion and compromise.
___ our decisions are not our own but are often forced on us by outside circumstances.

PART VI

1. A new baby always causes some changes in the family. Check the blank which best describes how much your new baby has changed each of the following.

	A great deal	A moderate amount	Somewhat	Very little	Not at all
a. Your relationship with your wife	___	___	___	___	___
b. Your life style	___	___	___	___	___
c. Your leisure time activities	___	___	___	___	___
d. Your sleeping and eating habits	___	___	___	___	___
e. Your sexual relationship	___	___	___	___	___
f. Your family finances	___	___	___	___	___
g. Other (please specify): _____	___	___	___	___	___

Continue to next page

ID #
post 1-husb

2. Following is a partial list of new parents' tasks. Place an "S" in the blank which indicates how you think each of these tasks should be divided in your family. Place an "A" in the blank which indicates how this task actually is divided in your family. You will have two answers for each item.

	Husband should always do	Husband should do more than wife	Husband and wife should share equally	Wife should do more than husband	Wife should always do
a. Change baby's diapers	____	____	____	____	____
b. Launder baby's clothes	____	____	____	____	____
c. Quiet baby when it cries	____	____	____	____	____
d. Arrange for care for baby when wife must be away	____	____	____	____	____
e. Get up in the night with baby	____	____	____	____	____
f. Feed baby	____	____	____	____	____
g. Play with baby	____	____	____	____	____
h. Other tasks (please specify): _____	____	____	____	____	____

PART VII

For the following questions, make an X on the percentage line in the place which best represents your answer or opinion.

1. All things taken into account, what percentage of the time have things been going well during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

2. All things taken into account, what percentage of the time have you felt satisfied with your marriage relationship during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

3. When all family decisions for the past month are taken into account, mark the line below to indicate what percentage of those decisions you agree with.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

Over

ID #
post-1

PART VIII

SENTENCE COMPLETION

Complete the following sentences as quickly as you can. Don't worry about textbook answers; complete them the way you feel about the issues involved.

1. What parents want most of their children _____
_____

2. Some women don't want to have children because _____
_____

3. My mother _____
_____

4. Men want children because _____
_____

5. Large families _____
_____

6. Father expects his child _____
_____

7. Birth control _____
_____

8. A childless marriage _____
_____

9. Generally, the reason for having children _____
_____

10. I want to have children because _____
_____

11. Some men don't want to have children because _____
_____

12. Most families _____
_____

13. Women want children because _____
_____

14. Although having children is natural _____
_____

Continue to next page.

15. In planning for a child's future _____

16. What children want most of their parents _____

17. The only child _____

18. Mother expects her child _____

19. The reason I want to have a son _____

20. When a child is yet unborn, the parents _____

21. In considering marriage, a person _____

22. Children who are not planned _____

23. I would expect my son to _____

24. I would like to have a daughter because _____

25. My father _____

26. Early marriages _____

27. Planned parenthood _____

28. Regarding children, the wife wants her husband to _____

29. I would expect my daughter to _____

30. I hope to have 0, 1, 2, 3, 4+ children. (Circle one)

APPENDIX I

Questionnaires

ID #
post 1-husb

DATE _____

HUSBAND'S QUESTIONNAIRE

PART I

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances	___	___	___	___	___	___
2. Matters of recreation	___	___	___	___	___	___
3. Religious matters	___	___	___	___	___	___
4. Demonstration of affection	___	___	___	___	___	___
5. Friends	___	___	___	___	___	___
6. Sex relations	___	___	___	___	___	___
7. Conventionality (correct or proper behavior)	___	___	___	___	___	___
8. Philosophy of life	___	___	___	___	___	___
9. Ways of dealing with parents or in-laws	___	___	___	___	___	___
10. Aims, goals, and things believed important	___	___	___	___	___	___
11. Amount of time spent together	___	___	___	___	___	___
12. Making major decisions	___	___	___	___	___	___
13. Household tasks	___	___	___	___	___	___
14. Laisure time interests and activities	___	___	___	___	___	___
15. Career decisions	___	___	___	___	___	___
16. Child raising	___	___	___	___	___	___

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
17. How often do you discuss or have you considered divorce, separation or terminating your relationship?	___	___	___	___	___	___
18. How often do you or your mate leave the house after a fight?	___	___	___	___	___	___
19. In general, how often do you think that things between you and your partner are going well?	___	___	___	___	___	___

ID #
post 2

	All the time	Most of the time	More often than not	Occa-sionally	Rarely	Never
20. Do you confide in your mate?	___	___	___	___	___	___
21. Do you ever regret that you married?	___	___	___	___	___	___
22. How often do you and your partner quarrel?	___	___	___	___	___	___
23. How often do you and your mate "get on each other's nerves?"	___	___	___	___	___	___

	Every Day	Almost Every Day	Occa-sionally	Rarely	Never
24. Do you kiss your mate?	___	___	___	___	___

	All of them	Most of them	Some of them	Very few of them	None of them
25. Do you and your mate engage in outside interests together?	___	___	___	___	___

How often would you say the following events occur between you and your mate?

	Never	Less than once a Month	Once or Twice a Month	Once or Twice a week	Once a day	More often
26. Have a stimulating exchange of ideas	___	___	___	___	___	___
27. Laugh together	___	___	___	___	___	___
28. Calmly discuss something	___	___	___	___	___	___
29. Work together on a project	___	___	___	___	___	___

There are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

	Yes	No	
30.	___	___	Being too tired for sex.
31.	___	___	Not showing love.

The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

0	1	2	3	4	5	6
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

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post 2-husb

32. Which of the following statements best describes how you feel about the future of your relationship?

_____ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
_____ I want very much for my relationship to succeed, and will do all I can to see that it does.
_____ I want very much for my relationship to succeed, and will do my fair share to see that it does.
_____ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
_____ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
_____ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

PART II

1. Check the response below which best describes what changes have occurred in your total family income within the last year.

_____ Total income decreased $6,000 or more.
_____ Total income decreased less than $6,000.
_____ Total income remained the same.
_____ Total income increased only by a cost of living raise.
_____ Total income increased by more than cost of living but less than $6,000.
_____ Total income increased by more than $6,000.

2. Have you moved as a result of the baby? (circle one) Yes No If yes, describe how your living arrangements have changed (e.g., moved from 1-bedroom apartment and bought house).

PLEASE NOTE NEW TELEPHONE NUMBER: _____

3. Have you changed your job situation as a result of the baby? (circle one) Yes No If yes, describe how.

4. Are there regularly scheduled or usual times in your daily routine when you and your wife discuss things with each other? (circle one) Yes No If your answer was yes, when are those times?

5. What is the average amount of time you and your wife spend in discussions each day? (check best answer)

_____ Less than 15 minutes
_____ Between 15 minutes and 30 minutes
_____ Between 30 minutes and 1 hour
_____ Between 1 and 2 hours
_____ More than 2 hours

(Continue to next page)

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6. When you are faced with a decision, how often do you consult with your wife?

_____All of the time _____Some of the time _____Never
_____Most of the time _____Occasionally

7. Please list any recent decisions you have made regarding your child.

PART III

Please indicate the degree of your agreement or disagreement with each of the following statements by circling the best answer according to the key below.

KEY: SA = Strongly Agree d = disagree
a = agree SD = Strongly Disagree
N = Neither agree nor disagree

1. SA a N d SD Housework is the woman's job.

2. SA a N d SD A husband should feel obligated to help his wife if he has the time.

3. SA a N d SD Housework should be done before the husband comes home.

4. SA a N d SD The husband and wife should share in decisions concerning expenditures of money.

5. SA a N d SD All in all, my own parents did a good job raising me.

6. SA a N d SD All in all, my wife's parents did a good job raising her.

7. SA a N d SD At the present time my wife seems generally pleased with our sexual relationship.

8. SA a N d SD Adjusting to this new baby is a difficult experience for me.

9. SA a N d SD Adjusting to this new baby is a difficult experience for my wife.

10. SA a N d SD After completing this questionnaire, my wife and I are likely to discuss our answers to it.

11. SA a N d SD Our friends and relatives think I am doing a good job raising our child.

12. SA a N d SD Our friends and relatives like our baby.

(Continue to next page)

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PART IV

Generally at the present time, how satisfied are you with each of the following? (check one answer for each item)

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied
a. You and your wife's decisions about work	____	____	____	____
b. You and your wife's decisions about parenting	____	____	____	____
c. You and your wife's decisions about money	____	____	____	____
d. You and your wife's decisions about leisure time activities	____	____	____	____
e. You and your wife's sexual relationship	____	____	____	____
f. You and your wife's conversations	____	____	____	____
g. The amount of time you and your wife spend in conversations	____	____	____	____
h. Your present job situation	____	____	____	____
i. Your wife's present job situation	____	____	____	____
j. Your participation in family decision making	____	____	____	____
k. Your wife's participation in family decision making	____	____	____	____
l. Your wife's ability to be a good parent	____	____	____	____
m. Your own ability to be a good parent	____	____	____	____

PART V

INSTRUCTIONS: For the following items, please check the answer which best completes the sentence.

1. As a result of our child, my wife and I now
   _____ feel much closer to each other.
   _____ feel somewhat closer to each other.
   _____ feel somewhat about the same degree of closeness as before the pregnancy.
   _____ feel somewhat less close to each other.
   _____ feel much less close to each other.

2. Compared with before our baby arrived, my wife and I now have
   _____ many more discussions than before.
   _____ a few more discussions than before.
   _____ about the same number of discussions.
   _____ slightly fewer discussions than before.
   _____ many fewer discussions than before.

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3. Compared with our feelings before the birth of our baby, my wife and I can now be described as
___ much less satisfied with our present situation.
___ slightly less satisfied with our present situation.
___ about as satisfied as we were before the pregnancy.
___ more satisfied with our present situation.
___ much more satisfied with our present situation.

4. As a result of this birth,
___ I have assumed many different behaviors and tasks from those I previously performed in the family.
___ I have assumed some new behaviors and tasks within the family.
___ I have kept the same behaviors and tasks within the family.
___ I have performed fewer of my usual behaviors and tasks within the family.
___ I have stopped many routine family tasks and behaviors.

5. Compared with how I felt before the birth of our baby, I now feel
___ much more unsure of my ability to handle difficulties than I felt before.
___ somewhat less sure of my ability to handle difficulties than I felt before.
___ about the same amount of confidence in my ability to handle difficulties.
___ somewhat more confident of my ability to handle difficulties than I felt before.
___ much more confident of my ability to handle difficulties than I felt before.

6. Compared with how I felt before the birth, I now feel
___ much happier.
___ somewhat happier.
___ about the same amount of happiness.
___ somewhat less happy.
___ much less happy.

7. When most decisions occur in our family,
___ one partner makes the final decision with little or no consulting of the other.
___ one partner makes the final decision after discussion with the other.
___ both partners reach the decision together through discussion and compromise.
___ our decisions are not our own but are often forced on us by outside circumstances.

PART VI

1. A baby always causes some changes in the family. Check the blank which best describes how much your baby has changed each of the following.

	A great deal	A moderate amount	Somewhat	Very little	Not at all
a. Your relationship with your wife	___	___	___	___	___
b. Your life style	___	___	___	___	___
c. Your leisure time activities	___	___	___	___	___
d. Your sleeping and eating habits	___	___	___	___	___
e. Your sexual relationship	___	___	___	___	___
f. Your family finances	___	___	___	___	___
g. Other (please specify): _____	___	___	___	___	___

Continue to next page

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post 2-husb

2. Following is a partial list of new parents' tasks. Place an "S" in the blank which indicates how you think each of these tasks <u>should</u> be divided in your family. Place an "A" in the blank which indicates how this task <u>actually is</u> divided in your family. You will have two answers for each item.

	Husband should always do	Husband should do more than wife	Husband and wife should share equally	Wife should do more than husband	Wife should always do
a. Change baby's diapers	____	____	____	____	____
b. Launder baby's clothes	____	____	____	____	____
c. Quiet baby when it cries	____	____	____	____	____
d. Arrange for care for baby when wife must be away	____	____	____	____	____
e. Get up in the night with baby	____	____	____	____	____
f. Feed baby	____	____	____	____	____
g. Play with baby	____	____	____	____	____
h. Other tasks (please specify):					
_____	____	____	____	____	____

PART VII

For the following questions, make an X on the percentage line in the place which best represents your answer or opinion.

1. All things taken into account, what percentage of the time have things been going well during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

2. All things taken into account, what percentage of the time have you felt satisfied with your marriage relationship during the past month? (Mark the line below.)

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

3. When all family decisions for the past month are taken into account, mark the line below to indicate what percentage of those decisions you agree with.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

Over

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post 2=husb

PART VIII

A. What method of feeding did you choose for your child? (Please check one and answer any questions which follow the answer you checked.)

_____ Breast only
How long was baby breastfed?

_____ Bottle only

_____ Combination of breast and bottle
How long was breastfeeding used?
How did you combine breast and bottle?

B. Of all the times you may want a babysitter, how easy is it for you to get one? (Circle a number.)

1	2	3	4	5
Sitter always available	Sitter usually available	Available about half the time	Sitter usually not available	Sitter never available

When you do get a babysitter, how confident do you feel about your sitters' ability to care for your child? (Circle a number.)

1	2	3	4	5
Extremely confident in sitter's ability		Neutral		Extremely uncomfortable with sitter's ability

C. Following are four reasons that people may wish to have children. First, rank these items from 1 to 4, placing a 1 next to the reason that is most important to you personally, 2 next to the second most important reason, etc. Next rank these items as you think most people in this country would rank them.

Your personal ranking		How you think others would rank them
_____	A. An affection and liking for children; a concern for children; a desire to take care of or nurture a child.	_____
_____	B. A feeling that it is part of the purpose or destiny of people, a desire to continue the human race.	_____
_____	C. A desire to create someone in his own image; the child's ability to follow in his/her parents' footsteps or to reflect well on his parents.	_____
_____	D. A child's ability to provide comfort or support for a parent, such as companionship, affection, cement for a marriage or help around the house.	_____

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post 2

PART IX

From birth, different babies have different ways of reacting to experiences. This section asks you to describe your baby's style of reacting along several dimensions. Circle the number on the scale which best describes your baby. (There are no right or wrong answers; rather this is an attempt to describe the temperament with which your child was born.)

1. Activity level: Does your baby move around a lot, twist, squirm or kick while you dress him/her or does s/he lie quietly awake for long periods?

Very active				Very quiet
1	2	3	4	5

2. Regularity: Is your baby predictable with respect to eating, sleeping and bowel movements or is s/he unscheduled and erratic?

Very Predictable				Very unscheduled
1	2	3	4	5

3. Adaptability to change in routine: How easily does your baby adapt to changes in schedule or to new situations? Does it take many experiences with a new situation for your baby to adapt to it? Do you find yourself adapting your schedule to the baby or does your baby readily adjust to a schedule which is convenient to you?

Adapts very easily to new situations and schedules				Experiences great discomfort with new situations and schedules
1	2	3	4	5

4. Reaction to new experiences: How does your baby usually react the first time s/he encounters new people, foods, situations, etc.? Does s/he act pleased and curious or tend to act somewhat frightened and shy away? (Note: It is developmentally normal for a child to begin showing a fear of strange people sometime between 6 & 12 months. If your baby has reached this stage, disregard his/her reactions to strange people when answering this question.)

Very pleased & curious about a new situation				Very easily frightened in strange & new situations
1	2	3	4	5

5. Level of sensitivity to sensations: Does your baby startle easily at loud noises? Become annoyed by bright lights, rough clothes, hot or cold temperatures? Does pain (a bump or scratch) bring a howl of discomfort or barely a whimper?

Very sensitive to sensations				Pays very little attention to sensations
1	2	3	4	5

(Continue to next page)

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6. Positive or negative mood: Is your baby generally pleased and contented or frequently fussy and dissatisfied even after a nap or feeding? Does s/he cry a lot upon awakening?

Almost always contented				Almost always dissatisfied & unhappy
1	2	3	4	5

7. Intensity of response: When your baby expresses feelings, how intensely does s/he do it? Does s/he cry loudly or fairly quietly in comparison to other babies? When happy, does s/he squeal with excitement or simply smile? How much energy does s/he seem to have for eating, fussing and generally moving about?

Reacts very intensely				Reacts very mildly
1	2	3	4	5

8. Distractibility: How easy is it to draw your child's attention away from an activity? When crying, can s/he be easily distracted with a toy or change of position? When eating, is s/he easily distracted by other activities?

Very easily distracted				Persists in face of most distractions
1	2	3	4	5

9. Persistence and attention span: How long will your baby stick with an activity, even if difficult or interrupted? For example, the persistent child keeps trying to reach a toy out of reach; the nonpersistent one tries only once or twice. A persistent child may keep fighting experiences s/he dislikes, like having his/her face washed while the nonpersistent child accepts without protest. A persistent child may return again and again to a forbidden activity, while the nonpersistent child may stop almost immediately.

Extremely persistent				Usually accepts without protest
1	2	3	4	5

APPENDIX J

Interviewer Training

APPENDIX J

Interviewer Training

1. Introduction of interview outline to be used
   - A. Discussion of each subject area
   - B. Memorization of subject areas and subtopics
   - C. Discussion of how to introduce self at beginning of interview
   - D. Keeping a log of hours

II. Listening skills
   - A. Paraphrasing
     1. Definition of paraphrase
     2. Demonstration of paraphrase
     3. Practice of paraphrase (interviewers use each other to practice skill)
   - B. Empathy
     1. Definition of empathy
     2. Demonstration of empathy
     3. Practice of empathy and paraphrasing together
   - C. Asking questions
     1. Open-ended questions
        - a. Definition of open-ended questions
        - b. Purpose (to expand on topic)
        - c. Creation of questions relevant to interview outline
        - d. Practice
          - (1) Each other (role plays)
          - (2) Actual parent interview
     2. Pursuit questions
        - a. Definition of pursuit questions
        - b. Purpose (to track down more specific information
        - c. Creation of pursuit-type questions relevant to questionnaire
          - (1) Introduction of closed questions--specifically the ones included as part of the interview
          - (2) Pursuit questions aimed at answering the closed questions
        - d. Practice
          - (1) 1-2 actual parent interviews listened to and critiqued by trainer and other interviewer
          - (2) 1-2 parent interviews to be completed in free time at home
   - D. Transitions
     1. What makes a good transition
     2. What kinds of natural transitions may occur in this particular subject matter
     3. What to do when transition isn't there (generation of ways to smoothly introduce each topic)

E. Continued practice
    1. Begin recording answers
        a. For interviews done as practice at home, go over forms in class
        b. For interviews done in class, both interviewers fill out the interview form to check for reliability
        c. Practice continues to criterion reliablity
F. Dealing with interviewee's questions

(Total training time estimated at 15-20 classroom hours.)

APPENDIX K

Outline of Telephone Interviews

APPENDIX K

Outline of Telephone Interviews

Prebirth interview

I. Introduction
   A. Identification of interviewer
   B. Establishment of convenient interview time
   C. Investigation of privacy and degree of comfort of interviewee

II. Reactions to pregnancy
   A. Discovery of pregnancy
   B. Interviewee's reaction
   C. Spouse's reaction
   D. Pregnancy planning

III. Changes in life due to pregnancy
   A. How is being pregnant different from before pregnancy
   B. What have been changes with pregnancy
   C. How long taken to adjust to changes

IV. Support structure
   A. Who is contacted for problems or concerns
   B. How often contacted
   C. How comfortable does interviewee feel contacting resource

V. Expectations of parenthood and coming baby
   A. What changes are anticipated
   B. What rewards are expected
   C. What difficulties are anticipated

VI. Communication with spouse
   A. Topics currently discussed
   B. Differences between current topics and pre-pregnancy topics

VII. Other reactions or feelings

VIII. Interviewer's assessment
   A. Degree of comfort for interviewee
   B. Degree of honesty of interviewee
   C. Inconsistencies
   D. Additional reactions to interviewee or interview process

Postbirth interview--1 month

I. Introduction
   A. Identification of interviewer
   B. Establishment of convenient interview time
   C. Investigation of privacy and degree of comfort of interviewee

II. Labor and delivery
   A. Description of the labor and delivery
   B. Description of reaction at first sight of baby
      1. Interviewee's reaction
      2. Spouse's reaction
   C. Efficacy of classes in preparing for labor and delivery

III. Baby's name
   A. When chosen
   B. Why chosen
   C. Who was primarily responsible for choice

IV. The baby at home
   A. Feelings and reactions to having baby at home
      1. How is it as expected
      2. How is it different from expected
   B. Changes in family routine and roles
      1. New activities or chores
      2. Changes in old routines
      3. Most difficult changes
   C. Return of family routine to a predictable pattern

V. Marital relationship
   A. Effect of new baby on marital relationship
      1. Changes
      2. Positive aspects
      3. Negative aspects
   B. Effect of new baby on communication
      1. How conversations are different from before birth
      2. How satisfied interviewee is with conversations and frequency

VI. Support sturcture
   A. Who is contacted for problems or concerns
   B. How often contacted
   C. How comfortable does interviewee feel contacting resource
   D. Has there been contact with other prenatal classmates

VII. Expectant parent classes feedback
  A. What stands out
  B. What was most helpful
  C. What would interviewee leave out
  D. What additional reactions

VIII. Interviewer's assessment
  A. Degree of comfort for interviewee
  B. Degree of honesty of interviewee
  C. Inconsistencies
  D. Additional reactions to interviewee or interview process

Postbirth interview--1 year

I. Introduction
  A. Identification of interviewer
  B. Establishment of convenient interview time
  C. Investigation of privacy and degree of comfort of interviewee

II. Description of child
  A. Personality of child
  B. Characteristics which parent might like to change
  C. Special problems in growth or health
  D. Hopes for child

III. Decision to have more children
  A. Does couple plan additional children
  B. What factors influence decision
  C. Who would be primarily responsible for decision

IV. Changes in life due to baby
  A. Changes in lifestyle and relationships to other people
    1. Use of leisure
    2. Attitudes toward job
    3. Relationships with friends
    4. Relationships with relatives
    5. Spontaneity
    6. Personal goals
  B. Age of child when household routine settled into a predictable and comfortable pattern
  C. Readjustment of marital relationship

V. Relationship with spouse
  A. Ways in which baby has affected relationship
  B. Effects on sexual relationship
  C. View of spouse in parental role

VI. Attitude toward self as a parent
   A. View of self in parental role
   B. Effects of parenting on self-concept
   C. Strengths and weaknesses as a parent
   D. Relationship between parenting role and life goals

VII. Parenthood
   A. How is parenthood as expected
   B. How is parenthood different from expected
   C. What are rewards and costs

VIII. Advice or thoughts for parents-to-be

IX. Reactions to participation in survey

X. Interviewer's assessment
   A. Degree of comfort for interviewee
   B. Degree of honesty of interviewee
   C. Inconsistencies
   D. Additional reactions to interviewee and interview process

APPENDIX L

Interscale Correlations for Original Communication, Decision-making and Marital Adjustment Subscales Before Creating Combined CDMA Scale

APPENDIX L

Interscale Correlations for Original Communication, Decision-making and Marital Adjustment Subscales Before Creating Combined CDMA Scale

Pre-birth observation (N = 66)

	MA	DM
Communication (COM)	.93*	.79*
Marital Adjustment (MA)		.73*
Decision-making (DM)		

1-month observation (N = 93)

	MA	DM
COM	.61*	.69*
MA		.56*

1-year observation (N = 95)

	MA	DM
COM	.66*	.60*
MA		.72*

* significant at $p \leq .001$

APPENDIX M

Inter Scale Correlations at Each Time of Observation

APPENDIX M

Inter Scale Correlations at Each Time of Observation

Pre-birth observation (N = 66)

	CRADJ	SEXADJ
CDMA	- .35	.47
CRADJ*		- .38

1-month observation (N = 93)

	CRADJ	SEXADJ	DISCR
CDMA	- .08	.44	.37
CRADJ*		.09	- .19
SEXADJ			.00
DISCR*			

1-year observation (N = 95)

	CRADJ	SEXADJ	DISCR	ATTBA
CDMA	- .35	.43	.13	.20
CRADJ*		- .33	- .10	- .39
SEXADJ			.05	.33
DISCR*				.17

* The reader is reminded that for these scales, low values are a positive score while high values are poor.

KEY: CDMA - Communication/Decision-making/Marital Adjustment
CRADJ - Crisis Adjustment
SEXADJ - Sexual Adjustment
DISCR - Discrepancy Between Should and Actual in Division of Tasks
ATTBA - Attitude Toward Baby

APPENDIX N

Item Content for Scales

APPENDIX N

Item Content for Scales

Communication/Decision-making/Marital Adjustment (CDMA) Scale

ITEM CONTENT (Questionnaire location of items is designated in parentheses. See Appendix I, p. 139 for actual questionnaires.)

1 Presence or absence of regularly scheduled or usual times in daily routine when husband and wife discuss things with each other (II 4)

2 Average amount of time couple spends in discussions each day (II 5)

3 Likelihood of consulting with spouse when faced with a decision (II 6)

4 Belief that the husband and wife should share in decisions concerning expenditures of money (III 4)

5 Degree of satisfaction with own and spouse's decisions about work (IV a)

6 Degree of satisfaction with own and spouse's decisions about parenting (IV b)

7 Degree of satisfaction with own and spouse's decisions about money (IV c)

8 Degree of satisfaction with conversations with spouse (IV f)

9 Degree of satisfaction with the amount of time spent in conversations with spouse (IV g)

10 Degree of satisfaction with participation in family decision-making (IV j)

11 Degree of satisfaction with spouse's participation in family decision-making (IV k)

12 Degree of consulting between spouses when making family decisions (V 7)

13 Percentage of time respondent has felt satisfied with the marriage relationship during the past month (VII 2)

14 Percentage of all family decisions during the past month with which respondent agrees (VII 3)

15 Total score for the Spanier Dyadic Adjustment Scale (I)

APPENDIX N

Item Content for Scales

Crisis Adjustment (CRADJ) Scale

ITEM CONTENT (Questionnaire location is designated in parentheses. See Appendix I, p. 139 for copies of questionnaires.)

1 Degree to which adjusting to pregnancy/birth has been a difficult experience for the respondent (III 8)

2 Degree to which adjusting to pregnancy/birth has been a difficult experience for the spouse (III 9)

3 Degree of change in relationship with spouse (VI 1 a)

4 Degree of change in life style (VI 1 b)

5 Degree of change in leisure time activities (VI 1 c)

6 Degree of change in sexual relationship (VI 1 e)

7 Degree of change in family finances (VI 1 f)

APPENDIX N

Item Content for Scales

Sexual Adjustment (SEXADJ) Scale

ITEM CONTENT (Questionnaire location for each item is designated in parentheses. See Appendix I, p. 139, for copies of questionnaires.)

1 Degree of couple's agreement about sex relations (I 6)

2 Degree to which spouse seems generally pleased with present sexual relationship (III 7)

3 Respondent's satisfaction with couple's sexual relationship (IV e)

4 Subscale score for Affective Expression from the Spanier Dyadic Adjustment Scale (I)

APPENDIX N

Item Content for Scales

Discrepancy Between Actual and Expected Division of Tasks (DISCR) Scale

For each item, the difference was calculated between the respondent's view of who should do as opposed to who actually does the following tasks.

ITEM CONTENT (Questionnaire location is designated in parentheses. See 1-month or 1-year questionnaires in Appendix I, p. 139.)

1 Change baby's diapers (VI 2 a)

2 Quiet baby when it cries (VI 2 c)

3 Arrange for care for baby when wife must be away (VI 2 d)

4 Get up in night with baby (VI 2 e)

5 Feed baby (VI 2 f)

6 Play with baby (VI 2 g)

APPENDIX N

Item Content for Scales

Attitude Toward Baby (ATTBA) Scale

ITEM CONTENT (Questionnaire location for item is designated in parentheses. See 1-year questionnaire in Appendix I, p. 139. Items 6-15 are from the 1-year interview.)

1 Parental rating of baby's activity level (X 1)

2 Parental rating of baby's regularity (X 2)

3 Parental rating of baby's reaction to new experiences (X 4)

4 Parental rating of baby's level of sensitivity to sensation (X 5)

5 Parental rating of baby's positive or negative mood (X 6)

6 Whether the couple has decided to have another child

7 Number of costs of parenthood listed in response to an open-ended question

8 Three-point rating of how rewarding parenthood has been for the respondent

9 Three-point rating of how costly parenthood has been for the respondent

10 Three-point rating of the degree to which a subject answered with fatalistic responses when asked open-ended questions about rewards and costs of parenthood

11 Three-point rating of the degree to which a subject answered with instrumental responses when asked open-ended questions about rewards and cost of parenthood

12 Three-point rating of the degree to which a subject answered with physical responses when asked open-ended questions about rewards and costs of parenthood

13 Three-point rating of the degree to which a subject answered with economic responses when asked open-ended questions about rewards and costs of parenthood

14 Three-point rating of whether parenthood has been easier than the parent expected.

15 Three-point rating of whether parenthood has been harder than the parent expected.

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

Communication/Decision-making/Marital Adjustment (CDMA) Scale

Pre-birth observation (N = 66)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE			ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	
1	.35*	-.10	-.16	.12
2	.27*	.11	-.02	.08
3	.55**	-.39*	.41**	.30
4	.29*	-.10	.04	.08
5	.63**	-.21	.38**	.40
6	.44**	-.18	.16	.19
7	.61**	-.31*	.34*	.37
8	.56**	-.22	.24	.31
9	.49**	-.28*	.23	.24
10	.72**	-.20	.28*	.52
11	.71**	-.09	.23	.51
12	.50**	-.13	.16	.25
13	.57**	-.17	.32*	.32
14	.74**	-.22	.25*	.54
15	.74**	-.33	.70**	.55

* $p \leq .05$
** $p \leq .001$
a Item content can be found in Appendix N, p. 174.

1-month observation (N = 93)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE				ITEM RELIABILITY
	CMDA	CRADJ	SEXADJ	DISCR	
1	.12	.09	.09	.02	.02
2	.32*	-.09	-.01	.23*	.10
3	.25*	-.01	.33*	-.13	.06
4	.25*	.27*	.02	.21*	.05
5	.60**	.05	.39**	.00	.36
6	.55**	-.24*	.31*	.20	.30
7	.59**	-.06	.09	.21*	.35
8	.61**	-.22*	.10	.15	.38
9	.71**	-.14	.13	.27*	.50
10	.61**	.03	.22	.20	.37
11	.66**	-.02	.28*	.35*	.44
12	.40**	-.09	.19	.33*	.16
13	.62**	-.19	.43**	.27*	.39
14	.70**	.00	.26*	.22*	.50
15	.70**	.01	.57**	.30*	.49

* $p \leq .05$
** $p \leq .001$
a Item content can be found in Appendix N, p. 174.

1-year observation (N = 95)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE					ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA	
1	.09	.12	.05	-.14	-.07	.01
2	.32*	-.12	.05	.19	-.09	.11
3	.30*	.12	.05	.06	-.27*	.09
4	.54**	-.18	.14	.12	.02	.29
5	.52**	-.19	.19	-.04	.15	.27
6	.65**	-.19	.28*	.10	.19	.42
7	.64**	-.30*	.34**	-.07	.29*	.41
8	.68**	-.24*	.34**	.04	.17	.46
9	.67**	-.23*	.27*	.08	.14	.45
10	.70**	-.23*	.18	-.01	.20	.49
11	.66**	-.07	.20	.06	.15	.44
12	.30*	-.13	.10	.44**	.05	.09
13	.37**	-.26*	.62**	.15	.34*	.14
14	.24*	-.19	-.09	-.11	-.04	.06
15	.73**	-.49**	.45**	.10	.27*	.53

* $p \leq .05$
** $p \leq .001$
a Item content can be found in Appendix N, p. 174.

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

Crisis Adjustment (CRADJ) Scale

Pre-birth observation (N = 66)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE			ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	
1	-.21	.39*	-.24	.15
2	-.28*	.50**	-.17	.25
3	-.34*	.57**	-.27*	.32
4	-.01	.78**	-.22	.61
5	-.02	.62**	-.22	.39
6	-.44**	.65**	-.38*	.43
7	-.16	.74**	-.14	.55

1-month observation (N = 93)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE				ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	DISCR	
1	-.16	.54**	-.21*	-.05	.29
2	-.17	.63**	-.13	-.21*	.40
3	-.14	.54**	-.05	-.29*	.30
4	.08	.64**	.01	.04	.41
5	.11	.56**	-.06	.06	.32
6	.07	.62**	-.06	-.11	.39
7	-.11	.46**	.15	-.18	.21

* $p \leq .05$
** $p \leq .001$
[a] Item content can be found in Appendix N, p. 176.

1-year observation (N = 95)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE					ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA	
1	-.12	.51**	-.18	-.14	-.41**	.27
2	-.25*	.52**	-.23*	-.22*	-.46**	.27
3	-.25*	.47**	-.12	.01	-.05	.22
4	-.07	.75**	-.27*	-.05	-.06	.56
5	-.15	.68**	-.28*	-.01	-.24*	.46
6	-.26*	.48**	-.18	.05	-.23*	.23
7	-.22*	.30*	.05	.00	.01	.09

* $p \leq .05$
** $p \leq .001$
[a] Item content can be found in Appendix N, p. 176.

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

Sexual Adjustment (SEXADJ) Scale

Pre-birth observation (N = 66)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE			ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	
1	.27*	-.28*	.86**	.73
2	.46**	-.26*	.66**	.44
3	.29*	-.35*	.74**	.55
4	.44**	-.29*	.84**	.70

1-month observation (N = 93)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE				ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	DISCR	
1	.21*	.07	.78**	-.10	.60
2	.27*	-.05	.55**	.12	.31
3	.40**	-.20	.63**	.03	.40
4	.29*	-.05	.69**	-.04	.48

* $p \leq .05$
** $p \leq .001$
[a] Item content can be found in Appendix N, p. 177.

1-year observation (N = 95)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE					ITEM RELIABILITY
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA	
1	.29*	-.19	.81**	-.08	.18	.65
2	.26*	-.28*	.79**	.08	.29*	.62
3	.40**	-.29*	.75**	.10	.36**	.57
4	.43**	-.27*	.84**	.06	.22*	.71

* $p \leq .05$
** $p \leq .001$
a Item content can be found in Appendix N, p. 177.

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

Discrepancy in Task Division (DISCR) Scale

1-month observation (N = 93)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE				ITEM
	CDMA	CRADJ	SEXADJ	DISCR	RELIABILITY
1	.33*	-.23	-.04	.77**	.58
2	.24	-.18	-.04	.59**	.35
3	.15	-.10	.36*	.17	.03
4	.14	.03	-.21	.63**	.40
5	.04	.00	-.13	.59**	.35
6	.28*	-.13	.07	.50**	.25

1-year observation (N = 95)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE					ITEM
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA	RELIABILITY
1	-.01	.00	-.19	.56**	-.02	.31
2	.05	-.13	.10	.73**	.16	.54
3	.11	.03	.13	.46**	.21*	.22
4	-.10	-.02	-.07	.68**	.15	.47
5	.04	-.09	.07	.70**	.10	.49
6	.36**	-.12	.14	.28*	-.03	.08

* $p \leq .05$
** $p \leq .001$
[a] Item content can be found in Appendix N, p. 178.

APPENDIX O

Scale Items' Reliabilities and Correlations with Own and Other Scales

Attitude Toward Baby (ATTBA) Scale

1-year observation (N = 95)

ITEM[a]	ITEM CORRELATION WITH EACH SCALE					ITEM
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA	RELIABILITY
1	-.16	.09	.05	-.16	.17	.03
2	.01	-.13	-.08	-.19	.30*	.09
3	.19	.12	-.09	.01	.24*	.06
4	-.07	-.17	.07	.22*	.12	.02
5	.08	.10	.06	.09	.17	.03
6	.08	-.29*	.34**	.35**	.60**	.35
7	.01	-.35**	.29*	.19	.39**	.15
8	.08	-.19	.19	.05	.45**	.20
9	.25*	-.29*	.30*	-.09	.63**	.40
10	.20	-.02	.20	.07	.28*	.08
11	.11	.09	.17	-.02	.22*	.05
12	.01	-.15	.18	-.06	.40**	.10
13	.03	.04	-.08	-.02	.27*	.07
14	.05	-.35*	-.13	.19	.31*	.10
15	.18	-.48**	.22	.19	.56**	.32

* $p \leq .05$
** $p \leq .001$
[a] Item content can be found in Appendix N, p. 179.

APPENDIX P

Summary of Alpha Coefficients for each Scale at each Observation

APPENDIX P

Summary of Alpha Coefficients for each Scale at each Observation

	Pre-birth	1-month	1-year	Average
CDMA	.86	.84	.83	.84
CRADJ	.80	.77	.73	.77
DISCR[a]		.71	.74	.73
ATTBA[a,b]			.66	.66
SEXADJ	.86	.76	.87	.83

[a] Scale not administered pre-birth

[b] Scale not administered at 1-month

APPENDIX Q

Correlations Between Husbands' and Wives' Scale Scores at each Time of Observation

APPENDIX Q

Correlations Between Husbands' and Wives' Scale Scores at each Time of Observation

Prebirth observation (N = 33 couples)

	CDMA	CRADJ	SEXADJ
CDMA	.69**		
DRADJ		.53**	
SEXADJ			.61**

1-month observation (N = 38 couples)

	CDMA	CRADJ	SEXADJ	DISCR
CDMA	.48**			
CRADJ		.22		
SEXADJ			.45**	
DISCR				.27*

1-year observation (N = 39 couples)

	HUSBANDS' SCALES				
	CDMA	CRADJ	SEXADJ	DISCR	ATTBA
CDMA	.49**				
CRADJ		.28*			
SEXADJ			.54**		
DISCR				.31*	
ATTBA					.36*

* $p \leq .05$

** $p \leq .001$

APPENDIX R

Regression Analysis Summary Tables

APPENDIX R

Regression Analysis Summary Tables

Wives' 1-month Change Score[a]

ITEM ENTERED[b]	F TO ENTER OR REMOVE	SIGNI-FICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R	OVERALL F	SIGNI-FICANCE	BETA
1	4.493	.043	.366	.134	.134	-.366	4.493	.043	-.346
2	3.673	.066	.484	.235	.100	.326	4.290	.024	.193
3	1.192	.284	.517	.267	.032	.264	3.278	.036	.275
4	.548	.466	.531	.282	.015	-.100	2.554	.063	-.284
5	1.112	.302	.559	.313	.031	-.183	2.274	.078	-.232
6	.190	.667	.564	.318	.005	-.174	1.865	.129	.131
7	.182	.674	.569	.323	.005	.181	1.570	.194	.101
8	.020	.889	.569	.324	.001	-.129	1.318	.286	.030

[a] Change Score represents the difference in Spanier Dyadic Adjustment Scale from prebirth to 1 month postbirth ($N = 30$).

[b] Item content can be found on p. 193.

APPENDIX R

Regression Analysis Summary Tables

Wives' 1-month Change Score

VARIABLE CONTENT (Questionnaire location is provided in parentheses. See Appendix I, p. 139 for questionnaires.)

1 Wife's indication that she (as opposed to her husband) should be more responsible for arranging care for the baby when she must be away (VI 2 d)

2 Composite score for couple including wife's indication of percentage of time things have been going well, both parents' indications of the percentage of time each has felt satisfied with the marriage relationship recently, and each parent's indication of the percentage of recent family decisions with which s/he has agreed (VII)*

3 Husband's indication of how likely he is to consult with his wife when making a decision (II 6)

4 Husband's combined score on two items indicating that since the pregnancy he has felt happier and closer to his wife (V 1 & 6)**

5 Wife's level of education (Background Information Form, Appendix C, p. 127)

6 Composite score for both husband and wife indicating the degree to which each expected the coming baby to change activities in their lives such as their relationship with each other, life style, sleeping and eating patterns, their sexual relationship and family finances (VI)***

7 Wife's indication of how likely she is to consult with her husband when making a decision (II 6)

8 Husband's indication of the degree to which he expects the coming baby to change his leisure time (VI c)

* Inter-item correlations range from .681 to .917. All are significant at $p \leq .001$.

** Items correlate .683 which is significant at $p \leq .001$.

*** Inter-item correlations range from .321 to .783. All but one are signigicant at $p \leq .05$.

APPENDIX R

Regression Analysis Summary Tables

Wives' 1-year Change Score[a]

ITEM ENTERED[b]	F TO ENTER OR REMOVE	SIGNI-FICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R	OVERALL F	SIGNI-FICANCE	BETA
1	3.616	.068	.349	.122	.122	-.349	3.616	.068	-.218
2	1.200	.284	.403	.162	.040	.289	2.422	.109	.188
3	.897	.353	.439	.193	.030	-.080	1.907	.155	-.188
4	.630	.435	.463	.214	.022	-.275	1.566	.217	-.165
5	.695	.413	.488	.238	.024	.257	1.375	.272	.150
6	.274	.606	.498	.248	.010	.323	1.154	.367	.115
7	.174	.681	.504	.254	.006	-.166	.975	.476	.099
8	.947	.830	.506	.256	.002	.120	.818	.596	.049

[a] Change score represents the difference in Spanier Dyadic Adjustment Scale from prebirth to 1-year postbirth (N = 28).

[b] Item content can be found on p. 195.

APPENDIX R

Regression Analysis Summary Tables

Wives' 1-year Change Score

VARIABLE CONTENT (Questionnaire location of items is provided in parentheses. See Appendix I, p. 139, for questionnaires.)

1 Wife's indication of how much change she expects the coming baby to cause in her relationship with her husband and their sexual relationship (VI a & e)*

2 Composite score for couple including wife's indication of percentage of time things have been going well, both parents' indications of the percentage of time each has felt satisfied with the marriage relationship recently, and each parent's indication of the percentage of recent family decisions with which s/he has agreed (VII)**

3 Husband's indication of the average amount of time he spends in conversations with his wife each day (II 5)

4 Whether husband's employment has changed as a result of the pregnancy (II 2)

5 Husband's indication of how likely he is to consult with her husband when making a decision (II 6)

6 Wife's indication of how likely she is to consult with her husband when making a decision (II 6)

7 Husband's indication of the degree to which he expects the coming baby to change his sexual relationship with his wife (VI e)

8 Husband's indication of how pleased he thinks his wife is with their present sexual relationship (III 7)

* Items correlate .683 which is significant at $p \leq .001$.

** Inter-item correlations range from .681 to .917. All are significant at $p \leq .001$.

APPENDIX R

Regression Analysis Summary Tables

Husbands' 1-month Change Score[a]

ITEM ENTERED[b]	F TO ENTER OR REMOVE	SIGNI-FICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R	OVERALL F	SIGNI-FICANCE	BETA
1	9.175	.005	.497	.247	.247	.497	9.175	.005	.590
2	3.113	.089	.570	.325	.078	-.100	6.490	.005	-.600
3	3.530	.072	.637	.405	.081	.104	5.909	.003	.372
4	2.301	.142	.675	.456	.050	.232	5.229	.003	.264
5	1.438	.242	.697	.486	.031	-.122	4.544	.005	.208
6	.790	.383	.709	.503	.017	.194	3.885	.008	.193
7	.683	.418	.720	.518	.015	-.046	3.381	.013	-.147
8	.377	.546	.726	.527	.009	-.073	2.922	.023	-.098
9	.155	.698	.728.	.530	.004	.209	2.510	.042	.126
10	.129	.723	.730	.534	.003	-.052	2.174	.070	.270
11	.543	.471	.740	.547	.014	-.207	1.978	.096	-.265
12	.137	.715	.742	.551	.004	-.060	1.738	.145	-.073

[a] Change scores represents the difference in Spanier Dyadic Adustment Scale from prebirth to 1-month postbirth (N = 30).

[b] Item content can be found on p. 197.

APPENDIX R

Regression Analysis Summary Tables

Husbands' 1-month Change Score

VARIABLE CONTENT (Questionnaire location is provided in parentheses. See Appendix I, p. 139, for questionnaires.)

1 Husband's indication of the average amount of time he spends in conversations with his wife each day (II 5)

2 Combined score for husband's indication of the degree of satisfaction he feels in his own and his wife's participation in decision-making and of the extent to which family decisions are made as a joint process (IV j & k, V 7)

3 Composite score for couple including wife's indication of percentage of time things have been going well, both parents' indications of the percentage of time each has felt satisfied with the marriage relationship recently, and each parent's indication of the percentage of recent family decisions with which s/he has agreed (VII)**

4 Husband's indication of how well he thinks his wife's parents did raising her (III 6)

5 Husband's indication of the degree to which he expects the coming baby to change his sleeping and eating patterns (VI d)

6 Wife's indication of how likely she is to consult with her husband when making a decision (II 6)

7 Husband's indication of whether or not a regular time is set aside for communication with his wife (II 4)

8 Wife's indication of how satisfied she feels with family decisions regarding parenting (IV b)

9 Husband's indication of the degree to which he as opposed to his wife should be responsible for feeding the baby (VI 2 f)

10 Wife's indication of how satisfied she is with her husband's employment situation (IV i)

11 Husband's indication of how satisfied he is with his own employment situation (IV h)

12 Husband's indication of how his wife's employment situation has changed as a result of the pregnancy (II 2)

* Inter-item correlations range from .500 to .774. All are significant at $p \leq .01$.

** Inter-item correlations range from .681 to .917. All are significant at $p \leq .001$.

APPENDIX R

Regression Analysis Summary Tables

Husbands' 1-year Change Score[a]

ITEM ENTERED[b]	F TO ENTER OR REMOVE	SIGNI-FICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R	OVERALL F	SIGNI-FICANCE	BETA
1	1.504	.231	.230	.053	.053	-.230	1.504	.231	-.760
2	5.451	.028	.466	.217	.164	.191	3.602	.042	.481
3	2.105	.159	.527	.278	.061	.114	3.205	.040	.388
4	.616	.440	.544	.296	.018	.001	2.521	.068	.271
5	.854	.365	.567	.321	.025	.003	2.175	.092	.176
6	.377	.546	.577	.332	.011	.157	1.826	.140	.132

[a] Change Score represents the difference in Spanier Dyadic Adjustment Scale from prebirth to 1-year postbirth (N = 28).

[b] Item content can be found on p. 200.

APPENDIX R

Regression Analysis Summary Tables

Husbands' 1-year Change Score

VARIABLE CONTENT (Questionnaire location is provided in parentheses. See Appendix I, p. 139, for questionnaires.)

1 Composite score for both husband and wife indicating the extent to which each felt satisfied with his/her own and the spouse's participation in family decision-making (IV j & k)*

2 Composite score for couple including wife's indication of percentage of time things have been going well, both parents' indications of the percentage of time each has felt satisfied with the marriage relationship recently, and each parent's indication of the percentage of recent family decisions with which s/he has agreed (VII)**

3 Wife's level of satisfaction with her own employment situation (IV h)

4 Husband's indication of the extent to which he expects the coming baby to change his relationship with his wife (VI a)

5 Husband's indication of how pleased he thinks his wife is with their present sexual relationship (III 7)

6 Wife's combined score indicating how likely she is to consult with her husband when making a decision and how satisfied she has been with family decisions regarding work and parenting (II 6, IV a & b)***

* Inter-item correlations range from .662 to .832. All are significant at $p \leq .05$.

** Inter-item correlations range from .681 to .917. All are significant at $p \leq .001$.

*** Inter-item correlations range from .337 to .462. All but one are significant at $p \leq .05$.