This study investigated the relationships among prepartum parenting support groups, social support, marital support, and maternal perceptions of infants. The subjects were 20 prospective first-time parents; nine of the 20 women attended the workshops with their husbands. Subjects completed measures of social support number and satisfaction (SSQ-S and SSQ-N), marital support (MAT), and perceptions of infants (NPI) at three times: prepartum, at one week postpartum, and at 8 weeks postpartum. Social support number and satisfaction, and marital support, were stable and highly correlated with each other at all three times. None of the support variables predicted perceptions of infants. Postpartum perceptions of infants were significantly more positive than prepartum perceptions, most likely due to increased experience with infants. Women with low levels of marital support were significantly more likely to experience Cesarean section birth. The design of this study was modest, utilizing no control group. Results are discussed in light of this limitation.
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Effects of Parenting Support Groups on Social Support, Marital Support, and Perceptions of Infants

Overview

Social support may have an ameliorative, or buffering effect, on stressful life events that might otherwise provoke psychological dysfunction. Transition to parenthood for first-time parents is a potentially stressful life event. Social support provided by parenting skills workshops may be of value in offsetting disruptions to the primary marital relationship that occur during this transition period. Good marital adjustment is believed to have salutary, indirect effects on infant development. The purpose of the present study is to examine the effects of prepartum parenting support groups for prospective first-time parents on marital adjustment, social support, and perceptions of their infants.

Prospective primiparous parents were recruited for a series of six weekly parenting support group workshops during the last trimester of pregnancy. Subjects were administered measures of marital adjustment, social support, and neonatal perceptions are three times: (1) prepartum (6-9 months pregnant); (2) one week postpartum; and (3) two months postpartum. Social support and marital adjustment were expected to be significant predictors of parents' perceptions of their newborn infants.
This paper will first discuss the benefits of social support as a mediator of life stress. The life stress impact of a first-born infant on the marital relationship will then be discussed, followed by a rationale for offering parenting support groups as a source of social support to prospective new parents. Finally, the importance of the role of fathers in studies of infant development, particularly in the context of indirect effects of marital relationship on mother-infant interactions, will be discussed.

Benefits of Social Support

Research on the effects of social support on health and psychological adjustment is rooted in Dohrenwend and Dohrenwend's (1974) seminal work on life stress and illness. Life stress was defined as the changes that occur in one's life that require adaptation, coping, and social adjustment. Such changes include, but are not limited to, death or illness of a family member, divorce, pregnancy, marriage, loss of job, and major financial burdens. Dohrenwend and Dohrenwend found small (.20 to .30), but statistically significant, correlations between stressful life events and general health, susceptibility to illness, myocardial infarction, depression, anxiety, and other psychiatric disorders. Based on these findings, Dohrenwend and Dohrenwend formulated their social stress theory of
dysfunction: the greater the degree of life stress experienced, the greater the disturbance in functioning, and the greater the possibility of dysfunctional behavior.

In addition to considering the nature of relationships found in life stress studies, the magnitude of these relationships also bear examination. By themselves, life stressors account for a relatively small amount of the variance in the dependent measures employed. Mediator variables may be critical in determining the extent to which life stressors affect individuals (Johnson & Sarason, 1979).

Social support has been proposed as a mediating variable of life stress. In early work predating the concept of social support, Antonovsky (1974) included among "resistant resources" to life stressors profound ties to concrete others:

"On the simplest level, a person who has someone to care for him is likely to more adequately resolve life tension than one who does not. Even without employing the resources of others, simply knowing that they are available to one increases one's strength" (Antonovsky, 1972).

In the most general sense, social support refers to the degree to which people have access to social resources upon which they can rely, especially in times of need, but at other times as well (Johnson & Sarason, 1979). Cobb (1976) has similarly described social support as information leading one to believe that one is cared for
and loved, esteemed and valued, and belongs to a network of communication and mutual obligation.

Studies of both animal and human subjects suggest that the mere presence of others of the same species can protect organisms from the effects of environmental stressors. For example, Conger, Sawrey, and Turrell (1957) studied approach-avoidance conflicts and gastric ulcer formation in rats. They found that rats subjected to such conflicts in isolation had more ulcers than did rats subjected to conflicts in the presence of littermates. Studies of servicemen during WWII suggest that combat in the presence of a stable network of "buddies" was less stressful than combat with an unfamiliar group of solidiers (Bovard, 1959).

Many studies have investigated the stress-moderating effects of social support on psychological dysfunction. Such studies typically find an inverse relationship between high levels of social support and psychological maladjustment. In an illustrative study, Holahan and Moos (1981) administered questionnaires examining life events, depression, psychosomatic symptoms, and family- and work-related social support to 245 men and 248 women. They found a strong relationship between low levels of social support and depression for both men and women. High familial social support was inversely correlated with
psychosomatic symptoms for women; high work-related social support correlated inversely with psychosomatic symptoms for men. Changes in the supportiveness of family and work environments over one year were significantly related to psychological adjustment over the same time period.

The impact of social support on the psychological well-being, attitudes, and behavior of parents has recently become the focus of developmental research. This interest has sprung largely from Bronfenbrenner's (1977) discussion of the importance of ecological variables to family functioning. For example, the beneficial effects of even short-term social support on obstetrical complications was demonstrated by Sosa, Kennell, Klaus, Robertson, and Urrutia (1980). In this study women entering the hospital in labor were randomly assigned to a support or no support condition. Women in the support condition were provided with the support of a lay woman from admission to delivery. The mean labor time from admission to delivery was 8.7 hours for the supported women, and 19.3 hours for the unsupported women, a difference significant at the \( p < .001 \) level. There was a lower incidence of drug use and surgical intervention in the supported group. Supported women also stroked, talked to, and smiled at their infants more often than women in the unsupported group. Anxiety during labor is also associated with increased maternal catecholamine levels, which deprive the fetus of oxygen
(Crandon, 1979). Simply having a sympathetic companion to talk with and rub their backs gave the women in the Sosa et al. (1980) study a great advantage during the stressful experience of labor and delivery.

Three other studies have reported mediating effects of social support on the relationship between life stress and obstetrical complications. Norbeck and Tilden (1983) administered life events, social support, anxiety, depression, and self-esteem measures to 117 medically-normal pregnant women. High life stress and low social support were strongly related to high "emotional disequilibrium" (a combination of anxiety, depression, and self-esteem measures); high emotional disequilibrium predicted infant-condition birth complications. Nuckolls, Cassell, and Kaplan (1972) similarly administered life events and social support instruments to 117 pregnant women. Nuckolls et al. found no relationship between life stress and birth complications. Significant relationships were found only when social support was taken into account. High life stress was unrelated to birth complications for women with high social support. Life stress was strongly related to complications for women with low social support. Women with low levels of support had three times the birth complications of women with high social support. Finally, Barrera and Balls (1983) found a significant relationship between perceived satisfaction...
with social support and number of birth complications.

Studies such as the one by Barrera and Balls (1983) point to the importance of measuring not only number of social supports, but also adequacy of or satisfaction with, such supports. To the extent that a social support network is less satisfying than one desires, psychological dysfunction may result. For example, Shultz and Saklofske (1983) investigated the relationship between quantity and quality of social support and stress, loneliness, self-esteem, locus of control, and psychological impairment, in 104 undergraduate students. Subjects with social support systems rated high in quality (as opposed to quantity) reported lower levels of loneliness, while high levels of loneliness were associated with subjects who perceived their support networks as lower in quality.

Finally, some researchers have investigated the stress-moderating effects of social support on postpartum depression. For example, Cutrona (1984) assessed social support and life stress in 71 primiparous women. Social support played a significant role in the incidence of maternal postpartum depression eight weeks after delivery. Deficits in two components of social support in particular were highly associated with postpartum depression: social integration (relationships in which people share interests and concerns), and reliable alliance (relationships in which people can count on others for assistance).
In summary, the investigation of the relations between life stressors and psychological dysfunction is a relatively recent enterprise. Correlations between life stress and psychological dysfunction have been relatively small, leading researchers to investigate moderating variables that may interact with life stress in the production of psychological maladjustment. Considerable research evidence suggests that social support has such a stress-moderating effect.

Becoming parents for the first time is likely to be a stressful life event for many people; indeed, life events scales inevitably assess for pregnancy and childbirth (see Holmes & Rahe, 1967; Johnson & Sarason, 1979). There are a number of reasons why the arrival of a new infant may be a critical life stress for first-time parents.

**Impact of a new infant**

Although the arrival of a new infant is primarily viewed as a joyful event, accompanying life changes such as: (1) responsibility for the well-being of the infant; (2) reallocation of financial resources; (3) disruption of the primary marital relationship; and (4) reorientation of relationships within the social network, may be experienced by new parents as stressful life events (Wandersman, Wandersman, & Kahn, 1980).

Some early researchers contended that the introduction
of a new infant into the home was an experience approaching crisis level. The birth of the infant was viewed as an "acute social event," a major stressor that had an impact on parents' living patterns and which required them to implement quickly new behavior patterns in the postpartum period (Gordon, Kapostins, & Gordon, 1965). LeMasters (1957) interviewed 46 middle-class white couples and reported that 83 percent had experienced what they agreed to be "extensive" or "severe" crisis following birth. Using a 5-point Likert-type scale, Dyer (1963) found that 53% of 32 couples rated themselves to be in an "extensive" or "severe" crisis category, with 38% in a "modest" category.

More recent research suggests that although parenthood can be a stressful experience, it is a crisis experience for only a small percentage of parents. For example, Hobbs (1965) reported that in a sample of 53 couples, 86.8 percent were classified in the "slight" crisis category, and no couples were in the "extensive" or "severe" categories. In a later replication of this study, Hobbs and Cole (1976) found that 68 percent of 65 couples fell into the "slight" and 29 percent into the "moderate" categories of crisis. Only 2% of the couples in the Hobbs and Cole study were classified as being in the "extensive" crisis category, and none were rated "severe." Similarly, Belsky, Spanier, and Rovine (1983) assessed change in
marital adjustment from the last trimester in pregnancy to nine months postpartum in 72 couples. Belsky et al. found that having a new infant resulted in modest, but significant, unfavorable changes in the marital relationship. Together, these findings suggest that it may be more accurate to think of beginning parenthood as a moderately stressful transition, rather than crisis, period.

Unlike other life cycle transitions, performance standards for new parents are unclear. New parents may be uncertain of what is expected of them or if they are doing a good job. People tend to seek affiliation under conditions of uncertainty or stress. Affiliation provides the opportunity to evaluate one's opinions and abilities (Festinger, 1954) and feelings (Schacter, 1959) through social comparison. Wandersman et al. (1980) found that affiliation provided a vehicle for establishing social contacts that were beneficial in coping with and adapting to a particular stressor, parenthood. Developing, gaining access to, and utilizing appropriate social supports have been identified as central processes in successful coping and intervention strategies (Cobb, 1976; Moos & Tsu, 1976).

In addition to lack of information and performance standards, social isolation can be a problem for new parents. Even if they are not physically isolated from the social network, the network may be irrelevant or too
dissimilar under present circumstances to help new parents deal with their uncertainties (Weiss, 1976). Marital support, while important, may not provide appropriate norms and social comparisons. Therefore, information, skills, emotional support, and appropriate reference groups which were previously available are likely to need to be supplemented by new sources of social support.

**Parenting groups as a source of social support**

How do people acquire the social supports that ease their transition to parenthood? Families have traditionally been embedded in a network of relatives, friends, and neighbors. These networks undoubtedly have had both direct and indirect influence on the rearing of children (Cochran & Brassard, 1979). For example, until quite recently, information about childrearing was transmitted informally within extended families and small communities. But new parents may not always have access to this kind of information and informal modeling of appropriate parental behavior. Indeed, prepartum deficits in the kinds of relationships that provide prospective mothers with authoritative guidance are associated with postpartum depression (Cutrona, 1984).

Studies examining social support's stress-moderating effects on the transition to parenthood have been characterized by an almost exclusive focus on the prepartum
period, most likely because it is difficult for new parents to find time to attend postpartum parenting groups. Some studies have demonstrated strong correlations between low prepartum social support and postpartum psychological maladjustment, dissatisfaction with parenting, and negative attitudes towards one's infant (Barerra & Balls, 1983; Crnic, Greenberg, Ragozin, Robinson, & Basham, 1983; Crnic, Greenberg, Robinson, & Ragozin, 1984; Nuckolls et al., 1972; Paykel, Emms, Fletcher, & Rasaby, 1980; Norbeck & Tilden, 1983). No study has experimentally manipulated the amount of prepartum social support to which subjects have access; rather, retrospective reports of prepartum social support are obtained either immediately prior to or just after childbirth, then correlated with dependent variables of interest.

For the most part, studies focusing on social support and the transition to parenthood have been reported in sociological and nursing journals. Only recently (and infrequently) have reports of such studies appeared in developmental and other mainstream psychology journals. This trend is most likely due to family sociologists' interest in family systems, particularly with regard to the impact of infants on marital relationships. Developmental psychologists, on the other hand, have tended to focus more on dyadic interactions within families. In spite of Belsky's (1981) plea for an integration of these two
disciplines in studies of early human experience, rapprochment has been slow to occur.

This integrative approach has characterized some research on social support during the transition to parenthood. Wandersman (1978) has pioneered the systematic use and evaluation of socially supportive parenting skills groups. She outlined five objectives of parenting groups: (1) adjustment to stressors before behavior patterns completely stabilize; (2) aimed at all families, not just those that are labelled "high-risk"; (3) support parents' strengths via feedback about performance; (4) familiarization with basic concepts of child growth and development, parent-infant interaction; (5) focus on the family as a system, rather than on parent-infant dyad. Wandersman's parenting groups typically met once a week for six weeks. Each meeting focused on a topic of interest (e.g., infant health and nutrition, how parents can make time for their relationships), and ample time was allotted for questions and discussion about this exciting transition period.

In the Wandersman (1978) study, 41 couples and 16 mothers (without fathers) participated in parenting groups. Afterward, they were asked to rate their agreement with 8 statements about the parenting groups on a five-point Likert-type scale (1 = agree not at all, to 5 = agree very much). Participants liked being in the
parenting groups very much (mean score = 4.6), and felt comfortable talking about their problems (mean score = 4.1). There was a consistent trend for parents to report that the parenting groups' greatest impact was on their expectations for themselves as parents (mean score = 3.5), and on their interactions with their babies (mean score = 3.3). Mothers in parenting groups felt the program had less beneficial impact on marital interaction than did parents in the couples' parenting groups. In couples' parenting groups, fathers reported at least as great a favorable impact as did mothers. Almost all parents reported that the thing they liked best about the parenting groups was the chance to meet other new parents, share experiences, and discuss common problems. Wandersman concluded that while useful, this study was subject limitations inherent in a self-selected sample, particularly in a situation in which there are strong demand characteristics to justify the effort of attending. In addition, no other measures (e.g., social support, marital satisfaction) were obtained.

A more recent experimental design attempted to expand Wandersman's (1978) efforts. Wandersman et al. (1980) attempted to specify which aspects of social support associated with parenting groups affected postpartum adjustment. In this study, questionnaires assessing instrumental marital support (time spent doing housework),
marital adjustment, marital emotional support, and general emotional support measures were administered to 24 couples participating in parenting groups and 24 control couples. Upon completion of the parenting groups, couples completed questionnaires assessing general psychological well-being, marital interaction, and parenting sense of competence. Fathers' instrumental marital support was not correlated with mothers' postpartum adjustment. However, marital cohesion (a sense of commitment and togetherness) predicted mothers' report of well-being and marital interaction, and fathers' report of fullness of life and parental competence. The strong relationship of marital cohesion to several areas of adjustment suggests that this subjective measure of emotional support plays a general facilitating role in predicting overall postpartum adjustment for parents. Also playing a significant role in adjustment was parenting group support for fathers, and perceived satisfaction with support that was available for mothers.

Contrary to expectations, the parenting group parents in the Wandersman et al. (1980) study did not show higher levels of postpartum adjustment than control parents upon completion of the program. There are several reasons why this might be so. First, subjects were not randomly assigned to conditions. Parenting group couples initially reported poorer psychological adjustment and less satisfaction with their babies than controls. Parenting
group participants may have been experiencing or were more willing to report experiencing difficulty in the early weeks of parenting; the greater initial stress reported by these couples may have obscured the positive effects of the parenting groups. Too, parenting group couples’ higher scores might have regressed to the mean on post-tests.

Second, only three of four subscales of the marital adjustment measure (Dyadic Adjustment Scale; Spanier, 1976) were administered; although this is a reliable instrument, shortening such measures is known to adversely affect their reliability (Anastasi, 1976). Third, some of the measures of adjustment in the Wandersman et al. study consisted of only a few items of unknown reliability and validity. Other researchers might conceptualize and measure adjustment in other ways which might have yielded differences between the parenting group and control parents.

In short, more stringent testing of the efficacy of parenting groups is called for before conclusions about their usefulness can be made. Such testing would include a carefully outlined, standardized parenting group program, reliable and valid dependent measures, and specification of the changes expected to result from the parenting group intervention.

Perhaps the greatest benefit of parenting groups such as those promoted by Wandersman is an increasing awareness
Psychological research incorporating a systems approach suggests that the sum of mother-infant, father-infant, and mother-father interactions may be greater than its parts.

**The importance of fathers and infants: Second-order effects**

Second-order effects refer to reductions in parent-infant interactions resulting from the presence of a second parent. For example, Belsky (1979) found that mothers and fathers talked to, played with, stimulated, and held their 15 month old babies more often when they were alone with the child than when the other parent was also present. Similarly, Pedersen, Yarrow, Anderson, and Cain (1978) investigated parent-infant and parent-parent interactions. Interactions involving all three members of the family were analyzed to determine if reduced parental behavior was associated with the other parent's presence, or to what transpired when both parents were together. Pedersen et al. found that reductions in parental behavior occurred due to spouses talking with one another. Mere physical presence of another parent was less important than what that presence generated — marital interaction.

Studies such as these have important implications for understanding parent-infant interactions and second-order effects. Belsky (1981) has eloquently summarized that:

"The inclusion of fathers in studies of infant development does more than create an additional parent-child relationship."
It transforms the mother-infant dyad into a family system comprised of marital and parent-infant relations. In so doing, the study of second-order effects demands a reconceptualization of the study of early experience. Since the immediate setting in which most children are raised is the family, the family must become the central unit of concern for investigations of early human experience."

A family approach to infant development would highlight direct and indirect pathways of influence in the family and individuals' multiple roles within the family context. Belsky (1979) proposed a scheme for integrating the reciprocal direct and indirect influences that marital relationships, parenting, and infant behavior/development may have on one another. This approach emphasizes the marital relationship, parenting, and infant development, instead of viewing the mother, father, and infant as individual social agents. This approach directs attention to a pattern of influence that Lewis and Weinraub (1976) have described as transitive, i.e., one in which the actions of one party (father) may influence a second party (infant), who influences a third party (mother). Such a framework also allows for such transitive effects as the influence of one party (e.g., infant) on the relationship between the parents, which in turn affects parenting behavior. This suggests that treating the mother and father as the unit of analysis may result in a greater understanding of parents' contributions to their infant's
development.

There is evidence that marital relationships affect parenting behaviors. In one study, Belsky (1979) observed 40 families with 15 month old babies. Fifteen parent, eight infant, and five spousal behaviors were recorded in the home on a time-sampling basis by trained observers. Belsky found that mothers' parenting styles were influential in involving their husbands in specific parenting behaviors. The frequency with which fathers talked about their babies was unrelated to patterns of mothering; however, the frequency with which mothers discussed such topics was systematically, reliably, and positively related to several patterns of fathering. Mothers who talked frequently about their babies had husbands who engaged their babies in cognitively stimulating verbal interaction, physical contact during play, and object-mediated play, in their wives' presence. In addition, these fathers also engaged their babies in object-mediated play when mothers were not present, suggesting that spousal influence may extend to times when the spouse is not present. Husbands with wives who spoke often about their babies were also rated high in intensity of positive affection and cognitive stimulation of their babies. Clarke-Stewart (1978) has similarly observed dyadic interactions among parents and infants. She found that when fathers were present, mothers talked, responded,
and played with their children less than when mother and child were alone.

Efforts to experimentally manipulate the transitive relationship between parental and infant behaviors have yielded mixed results. In one study, Belsky (1985) randomly assigned 67 families to one of two conditions. In the experimental conditions, parents were asked to actively elicit from their newborn infants a series of reflexes and behaviors culled from the Brazelton Neonatal Behavioral Assessment Scale (NBAS) (Brazelton, 1973). Parents assigned to the control condition were not asked to elicit such responses from their infants, rather, their infants' performance on the NBAS was reported to them. In the experimental conditions, mothers and fathers were jointly the target of the intervention in half of the families. For the other half of the treatment families, mothers were the sole target of the intervention. Behavioral measures of family interactions were made in the home at one, three, and ninth months.

Belsky hypothesized that the experimental treatment of both parents would influence the marital dyad and result in improved family functioning over mothers treated without fathers and controls. In no case was a significant effect found in family functioning due to the treatment or the target of the intervention. Belsky concluded that there was no evidence that active exposure to the NBAS was more
effective than verbal exposure, or that treating parents jointly is more effective than treating mothers alone. Nor could it be said that treating the triad affected the family system. There are several possible reasons why Belsky's intervention did not result in improved family functioning. First, the sample was comprised of white, middle-class couples. The sample may have been so low-risk that it had a narrower range of reactions to the intervention. Middle-class parents are characterized by lower stress levels and higher levels of social support than are lower-class parents; interventions aimed at middle-class parents may have less impact than on lower-class parents, who are typically exposed to higher levels of stress and lower levels of social support (Kaye, 1982). A second reason why the intervention was ineffective may involve its scope. The treatment may have been too minimal to achieve its goal of fostering increasingly complex and synchronous behavioral communication between parents and infants. More complex interventions utilizing the NBAS have been successful in effecting changes in parent-infant interactions. For example, Widmayer and Field (1980) had teen mothers administer items from the NBAS to their infants once a week during the first month. At one month, the treatment group mothers and their infants showed more optimal NBAS interactive process scores, feeding, and face-to-face
interaction ratings than did control mothers and their infants. Accordingly, Belsky (1985) suggested that had the intervention been coupled with other procedures, an experimental effect might have emerged.

To summarize, the inclusion of fathers in studies of infant development appears to be a step in the right direction. Including fathers does more than create an additional parent-infant relationship; rather, it transforms the mother-infant dyad into a family system (Belsky, 1981). This system is comprised of husband-wife as well as parent-infant interactions. Investigations of second-order effects in mother-father-infant interactions points to the importance of the marital relationship on infant development. It may be more appropriate to direct attention to improving marital relationships in intervention efforts, even if the target of the intervention is parent-infant interactions hypothesized to facilitate infant development. Systematic efforts aimed at preparing couples for "life with baby" (Belsky, 1985), such as the parepartum parenting support groups offered in the present study, might prevent some of the stress associated with the transition to parenthood that can undermine growth-facilitating caregiving.

The goal of the present study is to provide a systematic intervention that will ease the transition to parenthood. The major hypothesis of this study is that
such an intervention will have beneficial effects on marital adjustment which, in turn, will affect mothers' perceptions of their infants. The way in which a mother perceives her child's appearance and behavior is likely to modify her interactions with her child. The child's behavior will, in turn, be affected by its mother's handling (Broussard & Hartner, 1971).

Maternal Perceptions and Child Development

For some mothers, perceptions of their children may be more a function of mothers themselves than of their children's actual behavior. For example, Lobitz and Johnson (1975) have demonstrated that parents of clinic-referred children perceive their children as being significantly more deviant than parents of nonclinic-referred children perceive their children to be, even when clinic-referred children cannot be distinguished from nonclinic children on objective measures of behavior. In the Lobitz and Johnson study, discriminant analysis showed that parental perceptions alone accurately classified 90% of clinic-referred and nonclinic-referred children.

A number of researchers have examined the reasons why some parents perceive their children as more maladjusted than is warranted by the children's behavior. Maternal depression and marital problems have emerged as factors
affecting parental perceptions. For example, Griest, Forehand, and Wells (1979) examined whether maternal depression or child behavior was the best predictor of maternal perceptions of maladjustment for a group of 22 clinic-referred children. Griest et al. administered to the mothers questionnaires assessing maternal perceptions and maternal depression. Behavioral observations of child compliance and noncompliance were obtained during home visits. Stepwise multiple regression analysis indicated that mothers' depression score was the best predictor of maternal perceptions of their children's maladjustment. More depressed mothers perceived their children as more deviant. Neither child compliance nor child deviant behavior contributed significantly to the regression analysis. These findings suggest that factors other than children's actual behavior account for mothers' perceptions of their children.

A similar study of maternal perceptions yielded somewhat different results. A later study by Griest, Forehand, Wells, and McMahon (1980) demonstrated that a combination of maternal depression and child behavior was the best predictor of clinic-referred parents' perceptions of their children. Mothers of nonclinic-referred children appeared to base their perceptions solely on children's actual behavior. These results suggest that a complex interaction occurs in clinic-referred families. This
interaction may be critical in determining whether mothers will perceive their children in a positive or negative fashion. Maladjusted mothers may exert a significant influence on the occurrence of behavior problems in their children; children's behavior may, in turn, contribute to mothers' maladjustment. This insidious cycle is most likely transitive in nature. Finally, mothers of clinic-referred children are less satisfied with their marriages than are mothers of nonclinic children (Oltmanns, Broderick, & O'Leary, 1977), a finding that suggests second-order effects of marital relationships on maternal perceptions of children.

Several studies have focused on the effects of maternal perceptions during infancy. There is evidence that a mother's early perception of her first-born infant is in a fluid state. Broussard and Hartner (1971) devised the Neonatal Perception Inventories to examine the mother's perceptions of the average baby and her own baby. Broussard and Harntner had 318 primiparous mothers complete the inventories on the first or second postpartum day (Time I). Mothers rated their infants on a five-point Likert-type scale on items assessing a number of behavioral dimensions: crying, spitting up, feeding, eliminating, sleeping, and predictability. Inventories were administered again when infants were one month old (Time II). At one month postpartum, mothers also completed a
Degree of Bother Inventory, which similarly assessed maternal perceptions of infant problem behaviors. Maternal perceptions at Time I had no correlation with problems with infant behavior at one month of age, but Time II perceptions were correlated with one month behavior problems. Mothers who rated their infants' behavior better than average at Time II were less bothered by their infants' one month behavior than mothers who did not view their infants' as better than average at Time II.

Broussard and Hartner concluded that: (1) changes occur in perceptions of first-born infants during the earliest weeks of life, (2) 40% of mothers did not view their one month old infants positively, (3) maternal perceptions of infants at Time II may serve as a predictor of infants at risk for subsequent emotional disorder. This last conclusion was examined when the children were four and a half years old. At that time, 85 of the children were psychologically evaluated by clinicians who were blind to mothers' perceptions. Children were categorized into two groups: those with and without need for therapeutic intervention. A chi square test for association between Time II maternal perceptions and need for intervention was performed. A statistically significant association was evident between prediction and outcome. More infants in the high-risk group needed therapeutic intervention at four and a half years of age than did those in a low risk
group. Mothers also rated their own and their children's health on a five-point scale (1 = poor to 5 = excellent). More mothers of low-risk children viewed their own and their children's health as excellent than did mothers of high-risk children. Broussard and Hartner speculated that psychic reality for mothers of high-risk children may be characterized as less positive and less optimistic.

The critical variable associated with need for intervention appeared to be mothers' perceptions of their infants at one month of age. This measure appears to tap into what Broussard and Hartner called a "coping combo." If a mother has succeeded in early coping with the stresses of a new infant, she is more likely to have a feeling of accomplishment and to see her infant as better than average. The infant's ability to cope well later in development may be dependent upon its mother's positive perceptions. Broussard and Hartner pointed to the finding that maternal perceptions are fluid during the earliest weeks of infancy and that support systems that help new mothers implement successful coping strategies may be important for later optimal mother-infant interactions.

At least one study has examined the effects of such a supportive intervention on maternal perceptions of preterm infants. Zeskind and Iacino (1984) provided an "interventionist" to half of a sample of 32 mothers with preterm infants in a hospital Neonatal Intensive Care
Unit. The new mothers were provided with advocacy and support by this project interventionist, who accompanied mothers during routine meetings with hospital staff, clarified nursery procedures, and insured that mothers fully understood information provided to them about their infants by nursery staff. The interventionist made weekly appointments with the mothers to visit their own infants, providing them with transportation if necessary. In general, mothers in the intervention group were encouraged to visit their infants often, take an active interest in their infants' welfare, and ask questions when they had them. For six weeks after infants were discharged from the hospital, the interventionist made weekly home visits to answer questions and provide well-baby information.

The results of the Zeskind and Iacino study were dramatic. Mothers in the intervention group independently visited their infants more than twice as often as mothers in the control group. Infants in the intervention group remained in the hospital an average of 8 days less than control infants. More salient to the present study, maternal perceptions of their infants, as measured with the Broussard and Hartner (1971) Maternal Perceptions Inventories, were affected by the intervention. At the time of discharge, intervention mothers perceived their infants less positively than they did earlier. Unlike control mothers, intervention mothers may have progressed
through a "normalization" process with their new infants. Intervention mothers appear to have moved toward a more realistic appraisal of their infants; preterm infants' aversive cries and behaviors have been well documented (Lester & Zeskind, 1982). Despite this finding, intervention mothers had greater optimism about their infants' eventual medical and intellectual development than control mothers.

In summary, some mothers' perceptions of their children are likely to be more a function of the mothers themselves than of their children's actual behavior. Depression and poor marital relationships are two factors that may negatively influence mothers' perceptions. Children who are negatively perceived by their mothers may be at risk for later psychological maladjustment. Interventions that provide parents with information about child development in a socially supportive context may favorably affect perceptions of their infants. Positive perceptions may have a beneficial effect on mother-infant interactions that affect later infant development.

Summary

In conclusion, the transition to parenthood may be a particularly stressful life event for new parents. Social support can have beneficial stress-moderating effects during this transition. Traditional support networks
(e.g., family, friends, neighbors) may not provide new parents with the kind of social support that is salient to their experiences during this transition period. Parenting groups have been proposed as one way to provide new parents with more beneficial social support. Research suggests that parents report beneficial effects from participating in parenting groups, but empirical support for parenting groups' ability to effect measurable change in parents' attitudes is lacking.

The inclusion of fathers in studies of infant development highlights a need to reconceptualize families as more than isolated dyads. Mother-father interactions give rise to second-order effects that may have beneficial or detrimental effects on parent-infant interactions. Interventions that aim to alleviate the stress associated with a new infant may enhance marital relationships which, in turn, may have a salutary effect on infant development.

The present study will investigate the following hypotheses:

(1) Social support will be a significant predictor of new parents' perceptions of their infants, and that satisfaction with social support is more likely to be a more significant predictor of perceptions than number of social supports.

(2) Parents' perceptions of their newborn infants will become more positive over time.
(3) Number of social supports available to new parents will decrease prepartum.

(4) Satisfaction with social support available will decrease prepartum.

(5) Marital support will decrease over time.
METHOD

Twenty prospective primiparous couples were recruited for this study in two geographical locations. Roughly half of the subjects were recruited from pre-existing parenting skills workshops conducted by Montgomery Regional Hospital in Blacksburg, Virginia, and Radford Hospital in Radford, Virginia. The remaining half of the subjects were recruited in Gainesville, Florida, via posters, notices sent to local obstetricians, and through paid advertisements in local newspapers. The Florida parenting support groups were conducted in a public meeting room at the Gainesville Veterans Hospital Nursing Home, where the experimenter was completing a predoctoral internship.

Subjects

Table 1 summarizes maternal demographics, including number of years married, if the pregnancy was planned, socioeconomic status, age, if husband attended parenting support groups, and Cesarean section status. Number of years married ranged from one to nine, with a mean of 3.05 years, and a standard deviation of 2.32 years. Age ranged from 19 to 38, with a mean of 27.65, and a standard deviation of 5.70 years. All of the subjects in this study were prospective first-time mothers. All of the subjects were white. Ten of the twenty subjects were classified as being in the two highest socioeconomic classes (Classes 1
and 2) (Hollingshead, 1977), with the remaining subjects divided approximately evenly into Classes 3 and 4. No subjects were classified as Class 5. One subject did not complete postpartum measures, and two subjects were missing measures at one time. Mean scores were not substituted for missing data; thus all analyses were performed for the remaining 17 subjects only.

Table 2 presents birth data for the infants born to the subjects. This table includes Cesarean status, one minute Apgar rating scores (range=5 to 9, $M=8.20$, $SD=1.08$), five minute Apgar rating scores (range=5 to 10, $M=9.06$, $SD=1.27$), length of labor from arrival at the hospital (range=1 to 28 hours, $M=9.72$, $SD=6.34$), birth weight (range=2182.95 grams, $M=3357.21$, $SD=501.22$), birth length (range=46.99 to 53.34 centimeters, $M=51.71$, $SD=2.33$), and number of days (if any) infant remained in hospital after mother's discharge.

The rate of Cesarean section birth in this sample was 25%. Apgar rating scores were generally good, with the lowest one minute rating being 5. Only three infants had to stay in the hospital after mothers' discharge. Two infants remained in hospital with jaundice, and a third remained due to respiratory problems. All of the infants were born between 36-38 weeks of gestational age except one, who was born at 34 weeks, suffered from respiratory distress syndrome, and remained in the hospital 20 days.
Procedure

Upon recruitment into the study subjects completed a questionnaire which provided basic personal and demographic data, and agreed to complete measures of marital adjustment, social support, and perceptions of infants at three times: (1) at the time of recruitment/last trimester of pregnancy; (2) one week postpartum; and (3) two months postpartum. At each of the three times questionnaires were mailed to subjects with self-addressed, stamped envelopes enclosed for their return to the experimenter. Upon completion of each set of questionnaires, a check for $5.00 payment was sent to subjects.

Both prospective mothers and fathers were encouraged to attend the parenting support groups, which were held for six consecutive weeks. Both parents were encouraged to attend all six sessions; however, only nine prospective fathers attended the groups and completed the measures.

Parenting Support Group Program

The parenting support group program consisted of six weekly meetings. Each meeting lasted approximately 90 minutes and was conducted in the evening for the convenience of working subjects. Approximately half of each meeting was devoted to a presentation of the topic of the week, and the remaining half of the session was reserved for questions, discussion, and socializing. Each
meeting focused on a topic or theme of interest to prospective new parents, with an emphasis on infants' needs, parents' needs, and how to integrate the two. The overall aim of the parenting support groups was to make the transition to parenthood less isolated and more rewarding through the provision of information and sharing of experiences in a socially supportive atmosphere.

The parenting support groups focused on three areas believed to be important to the transition to parenthood: (1) lack of standards for determining adequate performance; (2) need to acquire new information and skills; and (3) provision of social support. Planned characteristics of the parenting support groups designed to facilitate these goals were: (1) increasing subjects' repertoire of skills by providing practical information about ways to optimize infant growth and development; (2) subjects' mutual sharing of ideas for alternative parenting strategies; (3) encouragement to be innovative in seeking new ways to cope with the stressors associated with new parenthood (e.g., forming babysitting co-ops so parents can get out alone); and (4) encouraging subjects to provide each other with support both in and out of group sessions. Basics of problem-solving and assertiveness skills were laid out in the first few sessions and subjects were encouraged to actively use these techniques throughout the groups for a variety of issues, ranging from dissatisfaction with
prenatal care to meddlesome in-laws.

Weekly themes for the parenting support groups were adapted from Wandersman (1978), but were also somewhat dictated by the format of the Virginia hospitals' pre-existing format. Workshops conducted exclusively by the experimenter in Florida tended to be slightly less consumer-oriented (e.g., which types of clothing best suit different aged infants), and somewhat more psychologically-oriented (e.g., why certain toys are better at different levels of infant cognitive development). However, slight variations in how the basic material was covered were not deemed to be of sufficient magnitude to interfere with the basic goals of providing information in a socially supportive atmosphere.

Weekly themes (see Appendix A) were as follows:

**Week 1.** Introduction and overview of purpose of the parenting support groups, with an emphasis on getting to know one another. Description of normal newborn characteristics (e.g., skin, hair, head, swelling, elimination), including what to be alarmed about and report to your doctor.

**Week 2.** Stress and the the mother/father role--what to expect. Problem-solving, assertiveness, and role flexibility as ways to cope with these stressors. The importance of a good marital relationship for optimal infant development.
Week 3. Infant social development—infants' strengths, capacities, and contributions to development. Needs for dependence, independence, and security. Reciprocity in parent-infant interactions. Parents' expectations about infant temperament vs. the reality of the infant's characteristics.

Week 4. Infant cognitive development—Piaget for beginners. Infants' drive for competence, desire to learn and explore, curiosity. Facilitating gross and fine motor skills, language. Working at infant's own pace, costs of pushing too hard. The important of play with parents and peers. Appropriate toys for different developmental stages.

Week 5. Effective parenting skills—making parents goals and values explicit and child-rearing strategies that facilitate them. Developmental changes in "good" and "bad" behavior and appropriate ways to deal with these. Effective methods of coping with temper tantrums.

Week 6. Parents' choice. Two topics of special interest to the group. Examples of topics discussed in depth are: evaluating day care, more on fathering and non-traditional infant care, and how to cope with family members who interfere with parenting. Wrap-up and summary, including trading phone numbers and due dates.

Some sessions began with a short "quiz" about the weekly topic (e.g., knowledge of normal newborn physical
characteristics, a "parenting style" questionnaire) which were then discussed at the end of the presentation. Subjects appeared to enjoy these exercises and spontaneously corrected their mistakes on the quizzes during the session.

Instruments

Marital Adjustment Test (MAT). Marital adjustment and support was assessed with the short form of the MAT (Locke & Wallace, 1959) (see Appendix B). This 15 item self-report scale has been found to successfully differentiate between distressed (71.7) and non-distressed (135.9) couples. This scale is widely used in research, has adequate reliability, and has demonstrated predictive validity (see Brody & Forehand, 1985). For research purposes a score of 100 or above is considered non-distressed.

Neonatal Perception Inventory (NPI). Perceptions of infants were assessed with the NPI (Broussard & Hartner, 1971) (see Appendix C). This self-report questionnaire compares the parents' perceptions of an average baby ("Average Baby" scale) to the parents' perceptions of their own baby ("Your Baby" scale) on six dimensions: crying, feeding, spitting up, sleeping, bowel movements, and rhythmicity. Babies are rated on a 5-point Likert-type scale for each item according to how troublesome these dimensions are (1=little or no trouble, to 5=a great deal
of trouble). Scores for the "Your Baby" scale are subtracted from the "Average Baby" scale to yield a difference score. This difference score indicates whether the respondent perceives his/her own infant as being more troublesome, less troublesome, or about the same as the average infant. The test-retest reliability of the NPI is .82 (Broussard & Hartner, 1971).

Social Support Questionnaire (SSQ). Number of social supports (SSQ—N) and satisfaction with social supports (SSQ—S) were assessed with this instrument (Sarason, Levine, Basham, & Sarason, 1983) (see Appendix D). This 27 item self-report questionnaire assesses the number of persons the respondent may rely upon to meet certain social needs. The respondent then rates how satisfied he/she is with that support for each of the 27 items (1=extremely dissatisfied, to 6=extremely satisfied). SSQ—N is the sum of the total number of supports listed on all 27 items divided by 27. SSQ—S is the sum of satisfaction ratings on all 27 items divided by 27. Separate factor analysis performed on the SSQ—N and SSQ—S was .34, and test-retest reliability for the SSQ—N and SSQ—S are .90 and .83, respectively, after four weeks (Sarason et al., 1983).

Personal Data. Subjects provided information about their age, length of time married, and whether or not the pregnancy was planned. Socioeconomic status was determined using Hollingshead's (1977) two-factor
(education/profession) index of social class (1=highest, 5=lowest) (see Appendix E).

**Infant Information.** Subjects provided the following information about the infants after delivery: sex, birth length, birth weight, and one- and five-minute Apgar scores. Subjects also reported on the length of labor from arrival at the hospital to delivery, whether or not the birth was Cesarean section, and the length of time the infant remained in the hospital after mother's discharge, if applicable (see Appendix F).
RESULTS

This study investigated the roles of social support and marital satisfaction on first-time parents' perceptions of their new infants. All prospective mothers (n=20) participated in a parenting support group. Prospective fathers were encouraged to attend the parenting support groups with their wives, but only a small number of them did so (n=9); therefore, no statistics were performed on prospective fathers' data. All prospective fathers who attended the parenting support groups attended all six sessions with their wives.

Tests of Hypotheses

Hypothesis 1 The first hypothesis investigated in this study was that social support would be the most significant predictor of subjects' perceptions of the infants. Since some studies suggest that number of social supports is not as critical to psychological adjustment as overall satisfaction with social support, the Social Support Questionnaire (SSQ), which measures both number (SSQ-N) and satisfaction (SSQ-S) with social support, was utilized. The Locke-Wallace Marital Adjustment Test (LW) was utilized to measure marital support. Table 3 presents the means, standard deviations and ranges for NPI, SSQ-N, SSQ-S, and LW scores at Times 1, 2, and 3. Table 4 presents the correlations between these measures at Times
1, 2, and 3. Note that support variables correlated highly with themselves and each other at all three times. Table 5 presents the correlations between change scores on the NPI (Time 1 to Time 2; Time 1 to Time 3; Time 2 to Time 3) and the support variables (SSQ-N, SSQ-S, and LW). Change scores on the NPI did not correlate significantly with any support variable at any time, although the relationship between change on NPI from Time 1 to Time 2 and LW Time 1 ($r = -.42, p < .066$), LW Time 2 ($r = -.37, p < .083$), and LW Time 3 ($r = -.36, p < .090$) scores approached significance, as did the relationship between NPI change scores between Time 2 and Time 3 and Time 2 LW scores ($r = .36, p < .089$).

The hypothesis that social support would be a significant predictor of perceptions was tested by performing three stepwise multiple regression analyses (one each at Time 1, 2 and 3) with NPI scores as the dependent variable, and SSQ-N, SSQ-S, and LW scores as independent predictor variables. As can be seen in Table 4, there was a high degree of multicollinearity among the independent variables, but none of the predictor support variables correlated significantly with NPI scores at any time. Thus, none of the independent variables were significant predictors of NPI score at any time.

The six individual items on the NPI were examined next with eighteen stepwise multiple regressions. A
stepwise multiple regression was performed with each individual NPI item serving as the dependent variable, with SSQ-N, SSQ-S, and LW scores serving as independent predictor variables. The same stepwise multiple regression was performed for Times 1, 2, and 3 on all six NPI items. Only one regression yielded a significant result. The first NPI item, which assesses beliefs about how much the infant will cry compared to the average infant, was significantly predicted by Time 1 SSQ-S score, $F(18) = 4.51, p < .05, \hat{R} = 22\%$. This result suggests that women with high levels of support satisfaction expected their infants' cries to be less difficult to deal with.

The relationship among perceptions, social support, and marital support was further investigated to determine if subjects high and low on SSQ-N, SSQ-S, and LW scores perceived their infants differently at each of the three times. To examine this proposition, subjects' SSQ-N, SSQ-S, and LW scores (which were highly and significantly correlated at all three times) were summed for Times 1, 2, and 3 and divided by three to yield a mean score for each subject for each measure. Scores were then categorized as high and low for each measure based on a median-split technique. SSQ-N scores of 3.12 or less were categorized as low, scores above 3.12 were categorized as high. SSQ-S scores of 5.28 or less were categorized as low, scores above 5.28 were categorized as high. LW scores of 121 or
less were categorized as low, and scores above 121 were
categorized as high. It is important to note that SSQ-S
and LW scores categorized as low using a median-split
technique were not in fact low, and included average as
well as very low scores. For example, SSQ-S scores ranged
from 1.00 to 6.00, yet the low category included scores up
to 5.28. Similarly, LW scores up to 121 were categorized
as low, yet literature suggests that distressed scores
usually fall below 100. This sample, while showing a wide
range of scores, was decidedly skewed.

Using this median-split technique, three multivariate
analyses of variance were performed to determine if
subjects high and low on SSQ-N, SSQ-S, and LW scores
perceived their infants differently at Times 1, 2, and 3.
Means and standard deviations for high/low scores on
SSQ-N, SSQ-S, and LW for NPI items are presented in Tables
6, 7, and 8. Three 2 (high/low) X 3 (time) MANOVA's were
performed for total NPI score and scores on each of the
six individual NPI items, for the three dependent measures
(SSQ-N, SSQ-S, and LW). Multivariate analyses indicated
that subjects categorized as high and low on the dependent
measures did not perceive their infants differently at any
time on total NPI score or any NPI item: SSQ-N, F (14) =
.89, p < .64; SSQ-S, F (14) = 1.00, p < .60; LW, F (14) =
4.64, p < .19.

Hypothesis 2 The second hypothesis investigated in
this study was that subjects' perceptions of their infants would become more favorable over time. This hypothesis was tested by performing a repeated measures multivariate analysis of variance with total NPI score and scores on the six individual NPI items serving as the seven dependent variables and time as the independent variable. Means and standard deviations for total NPI scores and scores on the six individual NPI items are reported in Table 9. There was a significant multivariate effect for time (F (16) = 2.93, p < .001. This finding demonstrates reliable differences over time on NPI scores.

The results of the univariate analyses shows significant effects for time on total NPI score, F (2,32) = 8.28, p < .001, and on the first four NPI items: crying, F (2,32) = 3.24, p < .050; feeding, F (2,32) = 13.48, p < .001; spitting up, F (2,32) = 7.69, p < .002; and sleeping, F (2,32) = 3.53, p < .043. There was no significant effect for time on NPI items five and six (bowel movements, rhythmicity). Newman-Keuls post hoc comparisons were conducted to determine which of the cell means were significantly different. Time 1 total NPI scores were significantly different from Time 2 total NPI scores, g3 (1,2) = 5.10, p < .01, and Time 3 total NPI scores, g2 (1,3) = 3.31, p < .05. Time 2 total NPI scores were not significantly different than Time 3 total NPI scores. Newman-Keuls post hoc comparisons for the six
individual NPI items showed no significant differences between pairs at different times. Thus, there was a significant effect of time on total NPI scores and scores on the first four NPI items, but only total NPI scores differed significantly using stringent post hoc comparison procedures.

Perceptions of infants were further investigated to determine to what increasingly positive perceptions might be attributed. Two repeated measures multivariate analyses of variance were conducted, one each for the "Average Baby" and "Your Baby" portions of the NPI serving as dependent variables, and time serving as the independent variable. There was no significant effect of time on "Average Baby" scores, $F_{(2, 32)} = 1.35, p < .276$. There was no significant effect of time on "Your Baby" scores, however, the relationship approached significance, $F_{(2, 32)} = 3.06, p < .063$. These findings suggest that increasingly positive perceptions resulted from subjects continuing to rate the average infant the same, but their own infants as better than average, over time.

Hypotheses 3, 4, and 5. Hypotheses 3, 4, and 5 were investigated with a single multivariate analysis of variance. A repeated measures multivariate analysis of variance with three dependent variables (SSQ-N, SSQ-S, and LW scores), and with time as the independent variable, was performed to investigate the final three hypotheses.
investigated by this study. These hypotheses were, respectively, that the number of social supports (SSQ-N), satisfaction with social supports (SSQ-S), and marital satisfaction (LW) would decrease over time. The multivariate analysis of variance on these three dependent variables showed no effect for time, $F(3,32) = 1.36, p < .247$.

**Exploratory Analyses**

**Cesarean Section Data** Five women, or 25% of the sample, gave birth via Cesarean section. Table 10 presents data for Cesarean section and vaginal delivery subjects on Time 1 SSQ-N, SSQ-S, and LW scores. Two-tailed $t$-tests were used to compare means between these groups of women. Cesarean section birth women had significantly lower LW scores at Time 1, $t(17) = -2.31, p < .035$; Time 2, $t(15) = -2.95, p < .011$; and Time 3, $t(17) = -2.63, p < .019$. There were no significant differences between Cesarean section and vaginal birth mothers on SSQ-N, SSQ-S, or NPI scores. These data suggest that marital support for Cesarean section birth women was consistently low throughout the late prepartum to postpartum period. Low levels of marital support may adversely affect mode of delivery.

**Infant Biomedical Status** Infant biomedical status data was collected for 17 of the infants in this study. Table
11 presents correlations between infants' birth weight, birth length, one minute Apgar score, five minute Apgar score, and length of labor.

Both birth weight and birth length were significantly correlated with length of labor ($r = -0.42$, $p < .05$, and $r = -0.42$, $p < .05$, respectively). Women who had smaller, lighter infants had longer labors. There were no significant correlations between length of labor and Time 1 SSQ-N ($r = -0.30$, $p < .11$); SSQ-S ($r = 0.05$, $p < .42$); or LW ($r = -0.01$, $p < .48$) scores. Nor was there a significant correlation between length of labor and dependent measures at Time 2 or Time 3. Fisher's exact test was conducted to determine if Cesarean section birth was more likely to occur for women whose pregnancies were unplanned; however, this relationship was non-significant, $p < .116$.

**Presence of Fathers** Nine men attended the parenting support groups with their wives. Table 12 presents data for women whose husbands attended the parenting support groups and for women whose husbands did not attend on SSQ-N, SSQ-S, LW, and NPI scores at Times 1, 2, and 3. Examination of these data suggest that women whose husbands did not attend the parenting support groups rated their infants more positively on the NPI on postpartum measures than did women whose husbands did attend. To further explore this relationship, a 2 (husband attend/husband not attend) X 3 (Time) MANOVA with NPI
scores as the dependent variable was performed. Scores at Time 1 were not significantly different (F = .12, p < .739). However, NPI scores at Time 2 (F = 11.15, p < .005) and Time 3 (F = 6.77, p < .022) were significantly different for these two groups of women. Women whose husbands did not attend the parenting support groups rated their infants more positively, particularly at Time 2.

Fisher's exact test was conducted to determine if women whose husbands did not attend parenting support groups were more likely to experience Cesarean section birth; however, this relationship was non-significant, p < .436.
DISCUSSION

This study investigated the relationships among social support, marital support, and perceptions of infants for prospective first-time parents attending a prepartum parenting support group. A fundamental assumption guiding the present study was that social support could effectively buffer detrimental effects accruing to subjects as a result of this stressful transition experience. This assumption follows from Dohrenwend and Dohrenwend's (1974) social stress theory of dysfunction, in which life stress leads to a disturbance in functioning, and a greater likelihood of physical or psychological impairment. Ideologically, this assumption shares with the "diathesis-stress" paradigm of dysfunction an interaction between predisposition toward disease and stressful life events. The term "predisposition" generally refers to constitutional factors, but this term can be extended to any tendency or inclination a person may have to respond in a particular way to a life stressor (Davison & Neale, 1980); the cognitive and physiological sequelae of varying degrees of social support are presumed to reflect the diathesis component of this paradigm for the purposes of the present study.

To summarize briefly, postpartum perceptions of infants were significantly more positive than prepartum
perceptions. The support variables (social support number, satisfaction with social support, and marital support) were not significant predictors of perceptions, with one exception. In that exception, prepartum satisfaction with social support predicted prepartum perceptions about how much difficulty subjects expected their infants to have with crying. Subjects with higher levels of support satisfaction expected their infants to cry less than the average infant. None of the support variables were significantly related to infant biomedical status.

Social support number, satisfaction with social support, and marital support were stable and highly correlated with each other at all three times. In the absence of a control group, it is difficult to determine if scores on these dependent measures remained stable due to effects of the parenting support groups or the unique characteristics of this sample. Exploratory analyses showed that women who experienced Cesarean section birth had lower levels of marital support at Times 1, 2, and 3. NPI scores of women whose husbands did not attend the parenting support groups were significantly higher than those of women whose husbands did attend the parenting support groups at Time 2 and Time 3.

The following presents a discussion of, and possible explanations for, the relationships among social support,
marital support, and perceptions of infants found in the present study. This discussion will also attempt to explore the relationship between low levels of marital support and likelihood of Cesarean section birth. Finally, shortcomings of the present study's experimental design will be discussed, and suggestions for strengthening future research on social support and perceptions of infants will be offered.

Perceptions of Infants

One hypothesis of the present study was that social support would be a significant predictor of perceptions of infants. This study found that social support—both number and satisfaction with, generic and marital—had little predictive value for subjects' perceptions of their infants. In one instance higher prepartum levels of satisfaction with social support significantly predicted positive prepartum perceptions. Due to the number of multiple regressions performed (21), it is possible for one significant result to be obtained by chance at the p < .05 level. However, learned helplessness theory provides an alternative explanation for this finding (Abramson, Seligman & Teasdale, 1978; Seligman, 1975). Briefly, learned helplessness theory posits that people exposed to uncontrollable events learn that events occur independent of their behavior. This learning proactively interferes
with the individual's response to future events, yielding a debilitated sense of personal efficacy and depression.

A woman expressing dissatisfaction with her social support is likely to feel unhappy and helpless about this situation. Combine this dysphoria with the prospect of an infant crying day and night! Of all the characteristics of a newborn infant, its demanding cries are a feature prospective parents are most likely to fear or dread. The aversive properties of infant cries, particularly those of sick and pre-term infants, are well documented (Boudykis & Burgess, 1982; Frodi & Lamb, 1980; Zeskind, 1980).

Extrapolating from learned helplessness research, women dissatisfied with their support may feel helpless and may be more likely to expect their infants' cries to be problematic.

It is important to note, however, that satisfaction with social support did not predict perceptions of crying difficulties at Time 2 or Time 3, a finding that requires consideration as well. One possible explanation comes from studies of learned helplessness and problem solving. Donovan (1981) exposed mothers of infants to varying degrees of control over the termination of recorded infant cries in a laboratory setting, then tested them on a solvable instrumental task in which they could all terminate similar infant cries. Mothers pretreated with inescapable infant cries showed debilitated
performance on the task, compared to women who had not been made helpless. The helpless mothers required a greater number of trials to learn the escape response, increased number of failures to escape the cry, and longer latencies before the cries were terminated. Donovan emphasized that helpless mothers' performance was not dependent upon the intensity level of infant cries.

Donovan and Leavitt (1985) have elaborated on this theme by ascribing attributions of infant temperament to cries heard by mothers in their study. Interestingly, non-helpless mothers rated the cries of the "difficult" infant as more aversive than did helpless mothers. Donovan and Leavitt concluded that perception of an aversive cry must be coupled with a perceived loss of control to be devastating to the caregiver.

In the present study most women had healthy, full-term infants who were discharged from the hospital with them after birth; the cries of healthy infants are less likely to be aversive than the cries of sick infants. Most likely, the women learned that promptly responding to the cries of an infant reduces crying (Simpkin, Whalley, & Keppler, 1984), enabling women to feel less helpless. Thus, while there was remarkable stability of satisfaction with social support from Time 1 through Time 3, there was no postpartum relationship between satisfaction with support and perceived difficulty
of infant cries. Different results might have been found if women with low support satisfaction had gone home with pre-term or sick infants whose aversive cries induced further helplessness in mothers.

In general, subjects' perceptions of their infants became more positive over time. One week and two month postpartum perceptions were significantly more positive than prepartum perceptions. It appears that for total NPI scores subjects at Time 1 began with slightly negative perceptions of their expected infant in relation to a perceived average infant. After the infants were born, subjects continued to perceive the average infant in a slightly negative fashion, but viewed their own infants increasingly more positively than the average infant.

Subjects showed positive increases in perceptions of their infants over time on the first four NPI items (crying, feeding, spitting up, and sleeping). No effect of time was obtained for the last two NPI items (bowel movements and rhythmicity). One possible explanation for this finding derives from recent research on the reciprocal, or transitive nature of mother-infant interactions (see Belsky, 1985; Widmayer & Field, 1980). Maternal responsivity to infants' cries, prompt feeding with cuddling, preventive measures to avoid infant spitting up, and sensitivity to putting the infant down to sleep are likely to optimize the infants' actual
behaviors. Thus, sensitive parenting may have led to changes in infants' behaviors, which in turn led their mothers to perceive them more positively.

The last two NPI items (bowel movements, rhythmicity) appear to be highly idiosyncratic and are less likely to be affected by maternal sensitivity to infants' needs. For example, it is normal for infants to eliminate several times a day or only once every other day; each infant develops his or her own pattern of elimination independent of maternal efforts (Leach, 1983). Similarly, infants' constitutional status is likely to determine the regularity of sleeping and eating cycles (Brazelton, 1983). Thus, while difficulties with feeding or sleeping may be positively affected by maternal responsivity, the rhythmicity with which these drives present themselves may reside entirely within the infant. Maternal behavior would then play no role in optimizing infants on these two dimensions.

Cognitive consonance may have played a role in postpartum perceptions. Festinger (1954) posited that under some conditions, private opinion changes so as to bring it into closer correspondence with overt behavior which a person has been forced to perform ("cognitive consonance"). It is possible that mothers were responsible for most of the infants' daily care and tended to reframe the work associated with having the infant as a
pleasant experience so as to justify to themselves the work involved in this task. Comparisons between mothers' and fathers' perceptions would have been valuable for examining this possibility, but too few fathers participated to make such comparisons valid.

As evidence, none of the mothers in the study were back at work at eight weeks postpartum, and many said they would not even look for part-time work until their infants were a year old. All of the fathers went back to work within days of the birth, except one father who took a two-week leave of absence when his infant was born. Despite two couples announcing that the mother would return to work after birth and the father would remain home with the infant, in no case did this actually occur. This is particularly interesting because of the advanced educational level/earning potential of many of the women in this study. Participants in this study deviated little from traditional new family roles. Similarly, traditional sex roles were also apparent in the greater number of women who attended the parenting support groups.

A more likely explanation for increasingly positive perceptions comes from infant temperament research suggesting that experience with infants leads to modification of perceptions of the infant's state, an explanation that is similar to (but not the same as) the suggestion that some maternal behaviors optimize infant
behavior in a transitive fashion. Accordingly, a brief review of the concept of temperament and its stability over time, particularly as measured by the NPI, is in order. The possibility that perceptions of temperament are modified by experience will also be discussed.

The present study utilized one of the earliest measures of infant temperament devised, Broussard's (1970) Neonatal Perception Inventory (NPI). Although this brief measure predates the concept of "infant temperament" which abounds in current literature, the NPI emerged concurrent with Thomas, Chess, and Birch's (1968) seminal New York Longitudinal Study in which infant temperament, or "behavioral style" was found to play a role in behavioral adjustment in early and middle childhood. In the past two decades over 25 instruments which purport to measure infant temperament have been developed. Among these are the Infant Temperament Questionnaire (Carey, 1970), Infant Behavior Questionnaire (Rothbart, 1978), Infant Characteristics Questionnaire (Bates, Freeland, & Lounsbury, 1979), Colorado Child Temperament Inventory (Plomin & Rowe, 1977), and the Perception of Baby Temperament Instrument (Pedersen, Zaslow, Cain, Anderson, & Thomas, 1980), to name but a few. None of the available instruments, save the NPI are deemed applicable to infants younger than 3 months of age (see Worobey, 1986, for a review of this issue). The NPI is the only perception of
temperament instrument suitable for use with newborn infants.

Broussard (1970) suggested that when a woman becomes a mother she has certain expectations as to what kind of mother she will be and what kind of infant she will have. The way the mother relates to the infant will be modified by her perceptions of his appearance and behavior. The infant's behavior will, in turn, be affected by her handling of him, a belief acknowledging the transitive nature of mother-infant interactions. Broussard posited that in our culture, being "better than average" is a desirable goal. It seemed appropriate to Broussard that mothers would expect their infants to be better than average. Using the concept of an average infant as an anchor point, the NPI asks mothers to compare their own infants to the average infant's behavior on six dimensions which were derived from Broussard's clinical experience with new mothers' concerns about their infants. Therefore, NPI items derive from clinical impressions rather than empirical research. The behavioral items include comparing your infant to the average infant on the degree of difficulty experienced with crying, spitting up, feeding, elimination, sleeping, and establishing rhythmicity in the eat/sleep cycle. As most parenting behaviors in the early newborn period center around instrumental activities appropriate for meeting the
infant's largely physiological demands (Fleming, Flett, Ruble, & Shaul, 1988), the items comprising the NPI appear salient.

Very few studies of perceptions of infants, including those utilizing the NPI, have examined the relationship between prepartum perceptions of the expected infant and postpartum perceptions. Research that has addressed these issues has yielded somewhat different results depending upon the population studied, but the effect of experience on perceptions of infant temperament emerge often enough to suggest that a similar experience effect occurred in the present study of primiparous mothers.

Parity has been demonstrated to have an effect on perceptions of infants. Mebert and Kalinowski (1986) measured prepartum and four and nine month postpartum perceptions with the Infant Characteristic Questionnaire (IFC) (Bates et al., 1979) in both primiparous and multiparous expectant mothers. Primiparous mothers differed significantly from multiparous parents in expecting their infants to be less predictable and perceiving their infants to be less adaptable at all three times. However, the pregnancy-postpartum correlations of perceptions were, overall, lower than the within-pregnancy correlations among the four subscales of the IFC, suggesting that the reality of the infant had considerable impact on postpartum perceptions. Thus, although
primiparous mothers had more negative expectations than multiparous mothers, prepartum perceptions were less important than the reality of the infant (including various concomitants of childbirth and infant caregiving) in forming perceptions during the postpartum period. Mebert and Kalinowski suggested that experience with previously born children made multiparous mothers' perceptions more positive and more stable across time.

Similarly, in the present study primiparous mothers' prepartum perceptions of their infants as the same as or more difficult than the average infant (a difference score of $\leq 0$, which Broussard refers to as a negative perception), were followed by significantly more positive postpartum perceptions. These findings are consistent with an experience hypothesis in that new mothers would have remained inexperienced with the average infant, but gained considerable experience with their own infants. Thus, postpartum perceptions of the average infant remained slightly negative, while experience with one's own infant could have led to more favorable perceptions. It would have been interesting to have a multiparous group with which to compare primiparous mothers' NPI scores.

At least one study besides the present study has utilized prepartum measures of the NPI for primiparous mothers. Fleming et al. (1988) measured mood state, desire for pregnancy, maternal attitudes toward
caretaking, attachment to infant, and maternal adequacy, and perceptions of infants at four times: prepartum and one month, three months, and 16 months postpartum. In the Fleming et al. study, prior experience with children (family's, friends', babysitting) was a significant predictor of prepartum feelings of maternal adequacy and at one and three months postpartum. More positive prepartum feelings about caring for the infant were significantly predicted by previous experience with children, a good marital relationship, and few feelings of fatigue or discomfort. At both one and three months more positive feelings about infant caretaking were associated with good marital adjustment at one month, whereas at three months positive attitudes toward infant caretaking were also associated with a healthy infant "state" (measured with the NPI). No prepartum variables predicted one month attachment to the infant, but at three months, women who were more ambivalent about becoming pregnant and who had less experience with children felt less attached to their infants.

Finally, in the Fleming et al. study the infant's state (NPI) at three months was a significant predictor of self-reported maternal adequacy and feelings about infant caretaking, but not at one month. Fleming et al. suggested that the data are consistent with the view that perceptions of the infant's state have little direct
impact on maternal mood in the first three postpartum months, but may eventually have an indirect effect on mood by influencing mothers' enjoyment of caretaking as the infant develops. Unfortunately, Fleming et al. did not report correlations between prepartum and postpartum NPI scores, making comparisons between their study and the present study difficult. Similar to the Mebert and Kalinowski (1986) study, however, experience with children was a significant predictor of a number of important maternal attitudes towards infants.

Another study utilizing the NPI points to the effects of experience on perceptions of infants in a more at-risk population. Zeskind and Iacino (1984) did not administer the NPI prepartum, but they did administer the NPI "Your Baby" scale to women whose infants were born preterm and who required hospital Neonatal Intensive Care Unit (NICU) treatment. Measures were taken prior to mothers' first visit to the NICU, immediately following the first visit, at time of infant's discharge, and at six weeks follow up. Half of the mothers were assigned an "interventionist" who facilitated NICU visits and encouraged the seeking of information about their infants' conditions, while the remaining mothers received no such assistance. Intervention mothers visited their infants more frequently and their infants spent less time in the hospital.
With regard to perceptions in the Zeskind and Iacino study, there were no differences between the two groups at the first two measurement times, yet intervention mothers showed reliably lower NPI scores, suggesting more negative (and realistic) perceptions at the remaining two times. Despite lower NPI scores, intervention mothers had higher scores on their prognoses for their infants' future intellectual and medical development. Unlike the control mothers, intervention mothers appeared to have progressed through a normal process of familiarization with their new infants based on increasing experience. These data are the reverse of that found in the present study, but both studies suggest that increased experience modifies perceptions of infants. It is possible that mothers of critically ill preterm infants may have a different psychological agenda that shapes their perceptions (seeing the infant in a more idealized fashion) than mothers in the present study who (for the most part) had healthy, full-term infants.

To conclude, few studies have assessed prepartum perceptions, and even fewer have examined the relationship between prepartum and postpartum perceptions. A number of studies, including the present one, strongly suggest that prepartum and early postpartum perceptions of infants are fluid and that increasing experience with one's own infant is likely to modify perceptions of that infant's
temperament.

Social Support and Its Relation to Perceptions

There are several possible explanations for the lack of a relationship between social support and perceptions of infants found in the present study. Perhaps foremost among these is restriction of range. Due to the characteristics of this homogeneous, self-selected sample, a ceiling effect on scores could have been obtained. A larger, more heterogeneous sample may have yielded the expected relationship between social support and perceptions.

The results of this study suggest marked stability across time on measures of social support and marital support. This stability may be related to the unique characteristics of this sample. However, research points to the necessity of assessing both number of and satisfaction with social supports. Sarason et al. (1983) have reported low correlations between number and satisfaction with support, suggesting that this is a bidimensional concept. Yet in the present study SSQ-N and SSQ-S scores correlated significantly with each other at all three times. It is difficult to reconcile these results with considerable literature to the contrary. However, recall that in the present study the median SSQ-S score was 5.28 of a possible 6.00, supporting Procidano
and Heller's (1983) suggestion that pregnancy and the newborn period reflect a "happy" bias; for example, SSQ-S scores of 6.00 occurred even for subjects with extremely low SSQ-N scores (1.00 to 2.00).

Social support literature suggests that social support, in particular the dimension of support satisfaction, is a powerful predictor of psychological adjustment. The present results are difficult to interpret in view of contrary research results. It is possible that for this sample, perceptions of one's infant did not necessarily reflect psychological adjustment. It is also possible that the NPI items, which derive from clinical experience rather than empirical methods, do not reliably tap into or represent psychological adjustment. Perhaps selection of a more rigorously compiled perceptions inventory that includes direct questions about attitudes towards one's infant and parenting (rather than inferring such attitudes as the NPI does) would yield an explicit relationship between social support and perceptions. Finally, a number of researchers question exactly what such measures of perception reflect — accurate appraisals of behavior or characteristics of the respondent?

Self-Report Instruments and Personality

Perhaps the greatest problem associated with research
on perceptions of infants and social support, including the present study, is reliance upon self-report instruments. All persons responding to self-report instruments bring with their responses certain personality characteristics that may influence their responses. For example, Procidano and Heller (1983) suggest that social support measures are actually measures of personality traits or mood states. These researchers believe that pregnancy and the newborn period reflect a "happy" bias in persons scoring high on the SSQ-S dimension, and that convergent behavioral data (e.g., videotaped parent-infant interactions) would be valuable for validating self-report.

Similarly, personality characteristics may also play a role in parents' self-reported perceptions of infants. Mebert and Kalinowski (1986) suggest that parents who rate the average infant to be easy and their own infant as close to average are really responding differently than parents who rate their own infants as close to average, but think of the average infant as being more or less aberrant. In the present study most subjects at the prepartum measure rated the average infant and their own infant in a slightly negative fashion. On postpartum measures subjects tended to continue rating the average infant negatively, and their own infants as better than average. Interestingly, only one subject (a psychiatrist)
consistently rated both the average infant/your infant as aberrant on all six NPI dimensions.

There is evidence that perceptions of infants are influenced to some extent by maternal personality characteristics. For example, mothers high in self-reported anxiety rate their infants as being more difficult (Sameroff, Seifer, & Celias, 1982), and depressed mothers' perceptions of their infants are more likely to be less positive (Cutrona & Troutman, 1985; Hopkins, Campbell, & Marcus, 1987). However, it is possible that mothers' affective states are negative because their infants are difficult.

The roles of infant temperament vs. those of maternal perceptions are difficult to disentangle. Lyon and Plomin (1981) found that parents do not appear to project their own personalities directly onto ratings of infant temperament. Sameroff et al. (1982) suggest that "Researchers using infant temperament questionnaires must entertain the possibility that their measures might reflect children's behavior, more likely reflect parental characteristics, and most likely reflect a complex combination of the two" (p. 173).

Defining just what constitutes "perceptions" can be just as difficult as defining the constituents of social support. Some researchers conceptualize perceptions as personality factors and others interpret them as accurate
reflections of infant behavior; yet we do know that negative maternal perceptions of infants may lead to less optimal mother-infant interactions. These may in turn affect both maternal mood and infant behavior. This linkage suggests a transactional, reciprocal relationship between perceptions and mother-infant interactions. Regardless of the subjective qualities of perceptions, they merit investigation. As such, it is simplistic to dismiss all self-report instruments as mere measures of personality. However, it is useful to bear in mind the limitations of self-report instruments when interpreting research results.

Overlap Between Social Support and Marital Support

Social support literature emphasizes that there is still no real consensus on what constitutes social support and how it can best be measured. It may be more useful to move away from a generic, overinclusive conceptualization of social support and investigate the types of social support that are most important for specific life stressors. The question should be "Who is the appropriate helper in a certain set of circumstances?" (Lieberman, 1986).

During the transition to parenthood, marital support may be the most important contributor to new parents' ability to cope with this stressor. Thus, for married
persons, marital support and social support may actually be the same thing. Sources of social support outside the marriage are unlikely to compensate for a poor marriage. In other words, what unsupported married people do not get from their spouses is not something that can be made up for by friends or relatives. Advocates of this position, Coyne and DeLongis (1986) concluded in their own research on this relationship: "In terms of intervention, this apparent lack of compensation suggests that any strategy for increasing social support might best be aimed primarily at the resolution of marital difficulties, rather than added support from outside the marriage."

Similarly, Crnic, Greenberg, Ragozin, Robinson, and Basham (1983) reported that marital support was the best predictor of mother-infant interactions, a finding mirroring Belsky's (1981) suggestion that a positive marital relationship is a major component of competent parenting. Such findings are salient to the present study in that most subjects listed their husbands as their first source of support on the SSQ-N for all 27 items; often the husband's name was the only name listed for the 27 items.

One hope of the present study was that subjects would become friendly with each other outside of the confines of the parenting support groups, thereby increasing their number of supports. Only two of the twenty subjects had even minimal contact with each other during or after the
parenting support groups. Interestingly, however, most subjects stayed in contact with the experimenter long after the parenting support groups ended, reporting on baby's progress, postpartum blues, recovery from Cesarean section, subsequent pregnancy, and in some cases, marital disruption. Unfortunately, the subjects did not stay in touch with each other. It is possible that increasing number of social supports during a stressful transition period is not a desirable goal. In fact, Coyne and DeLongis (1986) argue that it may be more adaptive to actually lower number of social supports during the transition to parenthood to avoid reciprocal demands of friendship, such as stress and being asked to nurture even more people.

Alternatively, it may be that subjects stayed in touch with the experimenter rather than each other because the type of social support provided by the experimenter (professional, educational, advice-giving) was more salient to the particular stressor of childbearing than simply having more friends. This notion is consistent with Cutrona's (1984) finding that provision of advice (experimenter) and tangible support (husband) are the most critical aspects of social support for postpartum psychological adjustment.

It was apparent that in many instances the experimenter, identified as a doctoral student in clinical
psychology, also served as a therapist for the parenting support group participants. For example, one couple were very dissatisfied with the way their obstetrician talked down to them. This couple called and often stayed late after groups to talk about this situation. They were encouraged to use assertiveness skills to confront this doctor. With the experimenter's (and group's) support this couple changed to a more holistically-run birthing center six weeks before their infant was due. Similarly, one woman who attended the groups alone often called between sessions to talk about her unhappy marriage. Help-seeking from the experimenter also characterized a number of other participants. It is clear that although the intent of the experimenter was to serve as a facilitator and provider of information, an element of facilitator-as-therapist emerged. Those conducting parenting support group research in the future should be prepared to do more than give talks, serve coffee, and direct social traffic. Many of the participants appeared to want more individual help.

Informal feedback suggested that the participants found the parenting support groups interesting, informative, and fun, yet simply sharing the experience of new parenthood was not enough to socially "connect" the participants. Although parenting support groups of this type can be educational and entertaining (worthy goals in
themselves), they may not significantly alter the size of or satisfaction with social support networks. Alternatively, it may be argued that it is not adaptive to increase numbers of social supports during a potentially stressful transition period, due to the reciprocal demands of friendship (Coyne & DeLongis, 1986).

Similarly, participation in the parenting support groups failed to produce measureable positive gains in marital satisfaction. It is possible, however, that the shared experience of the parenting support groups prevented declines that might otherwise have occurred. Evidence for this possibility comes from research on Lamaze preparation for childbirth training, another short-term intervention that purports to educate couples and strengthen marital relationships during the transition to parenthood. For example, in a study comparing Lamaze vs. non-Lamaze prepared couples prepartum and at two times postpartum (Markman & Kadushin, 1986), Non-Lamaze prepared couples' postpartum marital satisfaction scores were significantly lower than their own prepartum scores and lower than Lamaze prepared couples' postpartum scores. However, both Lamaze and non-Lamaze couples' marital satisfaction scores remained in the non-distressed range. Markman and Kadushin concluded that the effect of Lamaze training is in preventing declines in marital satisfaction that could have occurred, rather than preventing marital
distress.

While the parenting support groups are not strictly comparable to Lamaze training, a similar process in the parenting groups might have occurred. Only nine husbands participated in the parenting groups, however, all but one couple attended Lamaze preparation for childbirth classes, confounding the prepartum support variable. Without a control group with which to make comparisons, it is difficult to ascertain exactly what role the parenting support groups played in participants' social support and marital support. The findings of the present study do, however, point to the need for better-designed studies examining parenting support groups, particularly with more high-risk populations.

Low Marital Support and Cesarean Birth

Estimates of the frequency of Cesarean section birth in this country vary somewhat, ranging from 5-10% in freestanding holistically-oriented birthing centers, to as high as 33-35% in large university teaching hospitals (Anderson & Lomas, 1984; Baruffi, Dellinger, Strobino, Timmons & Ross, 1984; Fraser, 1983). Therefore, the rate of Cesarean section birth in the present study (25%) is about average. Unfortunately, surgical intervention in what should be a natural process has costs associated with maternal and neonatal complications and morbidity. There
is considerable evidence that infants born of drugged
births are adversely affected. These infants may have a
weak sucking response, poor motor coordination,
respiratory distress syndrome, abnormal neurological
behavior, and abnormal EEG readings (Baruffi et al., 1984;
Bowes, 1970; Brazelton, 1981; Conway & Brackbill, 1970;
Nielsen & Hokegard, 1984). Impairment is reported to
persist up to one month or longer (Aleksandrowicz &
Aleksandrowicz, 1974), with serious implications for the
reciprocal nature of mother-infant interactions. This
study did not address these specific after-effects of
Cesarean section birth, but it seems clear that even an
"average" rate of Cesarean section birth leads to
consequences costly in both financial and human terms.

The systems property of the transition from wife to
mother provides a built-in before and after design in
which each subject served as her own control. Per
Bronfenbrenner (1977), "such changes shall be conceived
and analyzed as changes in ecological systems, rather than
solely within individuals" (page 526). In the present
study, these indirect effects of the marital relationship
were subtle and unexpected. Women with low levels of
marital satisfaction were significantly more likely to
experience Cesarean section birth; women who had Cesarean
section birth had significantly lower levels of marital
support at both postpartum measurement times than vaginal
delivery women. This finding is similar to Norbeck and Tilden's (1983) report that marital support was the most significant predictor of birth complications, including gestational complications (high blood pressure, low hemoglobin, labor prior to 37th week), labor, delivery, and postpartum complications (ruptured membranes >24 hours before delivery, high blood pressure during labor, prolonged labor >22.9 hours, Cesarean section delivery), and infant-condition complications (5 minute Apgar <7, time to sustain respiration >89 seconds, admission to NICU, birth weight <2500 grams, stillborn/neonatal death <3 days). The mechanism by which poor marital support exerts such effects may be by mediating important prenatal self-care behaviors (e.g., diet and exercise) that in turn affect birth complications (Norbeck & Tilden, 1983).

Poor marital support may also have detrimental effects during labor and delivery that lead to prolonged labor, fetal distress, and subsequent Cesarean section birth. Clearly social support provided by the marital relationship was a more important factor for surgical intervention than support provided by the summed social support network. Four of the five Cesarean section women were "coached" through labor by their husbands (one couple separated when the woman was seven months pregnant); therefore, lack of labor partner was not likely responsible for increased risk of Cesarean section birth.
It is possible that for these women low marital satisfaction had a pervasive negative effect similar to that experienced by Guatemalan women in the Sosa et al. (1980) study, in which length of labor was longer for unattended women. Perhaps for Cesarean section birth women in this study, their husbands were "absent" emotionally.

Quality supportive companionship is important during labor and delivery. There is a relationship between anxiety, failure to progress in labor, fetal distress, and surgical intervention in the birth process. Crandon (1979) found a significant relationship between self-reported anxiety in the last trimester of pregnancy and obstetrical complications, including prolonged labor, instrumental delivery, and fetal distress. Anxiety results in high catecholamine levels (Lederman, Lederman, Work, & McCann, 1978). Increased catecholamine levels decrease uterine contractility, resulting in arrested or prolonged labor.

The detrimental effects of high catecholamine levels on the fetus are secondary. Interestingly, the injection of catecholamines directly into rhesus monkey fetuses caused no harm to them (Barton, Killam, & Meschia, 1974). The injection of catecholamines into pregnant rhesus monkeys, however, resulted in fetal asphyxiation. Maternal psychological distress caused by high
catecholamine levels asphyxiated fetuses due to decreased uterine contractions and placental blood flow.

A frequent consequence of decreased uterine contractility is the use of drugs (e.g., Pitocin) to stimulate contractions. These drugs result in more frequent and powerful contractions than would ordinarily be experienced (Bergsjo, Bakketeig, & Eikhom, 1982). Many women find these contractions difficult to bear, and are subsequently administered some type of anesthesisia to reduce pain. Unfortunately, a side effect of pain-reducing drugs is that contractions may once again slow down (Brewer, 1978). The consequences of anesthesisia-arrested labor are fetal distress, and, most likely, Cesarean section birth with its attendant risks to mother and infant.

There could be, of course, other reasons why the women in the present study experienced Cesarean section birth other than low marital support. It is possible that a third, correlated variable such as general physiological health, socioeconomic status, education, family background, or other extraneous variable confounded the relationship between Cesarean section birth and low marital support. Too few women participated in the present study to analyze data by socioeconomic status, for example.

Although this study did not specifically address
general physiological health, it is important to note that a variety of physical health problems may affect mode of delivery. Informal discussions revealed that one woman who experienced Cesarean section birth did not fit the low marital support "profile." In this instance, the woman had a history of diabetes, causing her to have a very large infant (nearly 10 lbs.) and a scheduled Cesarean section birth. Low marital support, and number of social supports in general, characterized the remaining Cesarean section birth women. However, future research exploring this association should bear in mind the possibility of confounding variables. Prepartum health assessment indices should be chosen carefully to distinguish between variables such as pre-existing medical conditions unlikely to be influenced by marital relationships (e.g., diabetes, thyroid disease) and conditions due to prenatal behaviors that may be influenced by marital relationships (e.g., toxemia due to poor quality diet, high blood pressure).

Presence of Fathers

Nine men (45%) attended the parenting support groups with their wives, creating another question of interest, namely, if the the responses of women whose husbands did not attend the sessions differed from those of women whose husbands did attend. Women whose husbands did not attend the parenting support groups rated their infants
significantly more positively on the NPI at Time 2 and
Time 3. In fact, most of the increase in perceptions for
the group overall appear to be attributable to the NPI
scores of women whose husbands did not attend the
parenting support groups.

This is an interesting relationship, with several
possible explanations. The first of these possibilities
follows from Zeskind and Iacino's (1984) finding that
interventionist-supported mothers of sick, preterm infants
gave more negative, but realistic appraisals of their
infants' behavior than non-supported mothers. In that
study, women who were not provided with the support of an
interventionist continued to rate their infants in an
unrealistically positive fashion. Similarly, in the
present study, women whose husbands did not attend may
perceive themselves as less supported (as evidenced by
generally lower marital support scores), which in turn
leads to unrealistically positive ratings of infants.

A second possibility for these findings is that
parenting support groups may have differential effects for
women with lower or higher levels of marital support, and
marital support was lower in general for women who
attended alone. It is possible that for unknown reasons
women whose husbands did not attend may get more out of
the infant information component of the parenting support
groups than women who attended with their husbands.
Alternatively, perhaps women whose husbands did not attend and who had lower levels of marital support are more "invested" in their infants vs. their marriages than women whose husbands did attend.

Finally, women whose husbands did not attend the parenting support groups may have simply been more truthful than women whose husbands did attend. Couples who completed questionnaires sent them to the experimenter in a single envelope, and knowing that their spouses might see their responses may have biased them toward more favorable marital support and lower infant perception scores. Women who attended the parenting support groups alone were not similarly constrained by scrutiny of their responses by their spouses. In future, it would be helpful to provide all subjects with individual envelopes for return of questionnaires.

A combination of low marital support and husband not attending the parenting support groups characterized three of the five women who experienced Cesarean section birth. In fact, these three women had the lowest levels of marital support of all subjects at all three times. Simply not having one's husband attend the parenting support groups did not lead to Cesarean section birth. However, these findings suggest that extreme marital distress, coupled with a husband who is unwilling to engage in a joint activity aimed at understanding infant
growth and development (parenting support group), is a poor prognostic indicator for normal vaginal delivery. This is particularly interesting because two of these three women's husbands attended Lamaze preparation for childbirth classes with them. Perhaps childbirth classes have become so enculturated that even unhappy couples feel obliged to attend due to medical and social pressures. Parenting support groups may represent an extra step in acknowledging future joint responsibility for cooperatively raising an infant that may not appeal to all prospective fathers.

Of course there may be other reasons why fathers did not attend the groups with their wives, such as working in the evening. It is also possible that the expected infant is much more "real" to the pregnant woman than it is to her husband and that is why more women attended this prepartum series of parenting support groups. Perhaps postpartum parenting support groups would attract more men. Without having assessed reasons for non-attendance it is difficult to determine why these men did not attend. The data suggest, however, that a combination of very low levels of marital support coupled with a husband who did not attend the parenting support groups had a negative effect on mode of delivery.

Caveats Regarding Sample and Design

It is important to note that all subjects in the
present study elected to participate in the parenting support groups. It is unlikely that they represent a population that did not elect to participate. As such, they were more likely to be enthusiastic about becoming parents and have more stable, cohesive marital relationships than persons who did not participate. Participants in helping groups are high help-users who turn in times of stress to kith, kin, and helping groups; they have more varied and more accessible social support networks than matched samples who do not utilize such help groups (Lieberman & Borman, 1979). Therefore, inferences about the transition to parenthood and social support drawn from the results of this study must be interpreted cautiously.

A further caveat regarding the findings of this study are related to its modest scope and design. No control group against which to compare the present study's findings was utilized. Prepartum to postpartum changes or lack of changes occurring on the dependent measures cannot be attributed to the parenting support group intervention. Therefore, this study is best viewed as one which may generate hypotheses for future research, rather than one which generates conclusive findings.

Plans to include several comparison groups in the present study were deemed unrealistic due to the constraints of the small, rural population, and past
difficulties in recruiting large numbers of subjects in this part of Virginia. Given these constraints, an n of 20 appeared reasonable. Yet recruiting sufficient subjects remained difficult. Indeed, it took two years to recruit 20 couples for the parenting support groups, despite the provision of information in an entertaining way, opportunities to meet other prospective new parents, free refreshments, and payment each time a set of questionnaires was completed. The experimenter must speculate that the late prepartum period is a very busy one for prospective parents, during which they must find time to attend preparation for childbirth classes; perhaps the additional time required for parenting groups is not feasible. Alternatively, it is possible that the infant is not yet "real" to the prospective first-time parent. Finally, there may be little interest in preventive approaches to parenting difficulties. Perhaps parents prefer to wait until difficulties arise before seeking help.

A better-designed study investigating the relationships among parenting support groups, social support, and perceptions of infants would be more costly and time-consuming. Ideally, the study would include two groups of parenting support group participants: one group comprised of couples, and one group comprised of women without their husbands, to determine if the effects of
parenting support groups are more beneficial for couples. Responses of these two groups would also be compared with those of no treatment controls. Such a study would include reliable and valid measures of social support, marital support, perceptions of infants, anxiety, and depression. Major measures would be completed beginning in the first trimester of pregnancy, when physiological concomittants of psychological distress may adversely affect the fetus during this critical growth period, and continue on through each trimester of pregnancy and periodically through the infant's first year of life. Obstetrical risk ratings would be useful for determining health status during pregnancy. Periodical assessment using standard infant developmental status measures (e.g., the Brazelton scales) could be used to gain objective estimates of the infant's true physiological status. Behavioral measures of parent-infant interactions could be videotaped and coded to verify parental report of parent and infant behavior. Similar studies adapted to more at-risk populations (e.g., unmarried pregnant teenagers) could also be done and comparisons made to see if such interventions are more useful for specific populations. Finally, the ideal study is likely to be conducted at a large university teaching hospital with access to large numbers of prospective subjects and is located in an urban area with a psychologically sophisticated population.
Summary and Conclusions

In this study social support number and quality, and marital satisfaction, remained stable from the last trimester of pregnancy to two months postpartum for the women in this study. It is possible that the transition to parenthood need not be a crisis in the marital relationship. Alternatively, it is possible that the parenting support groups prevented declines in social support and marital support that might otherwise have occurred. Finally, these findings may be due to the characteristics of this sample, the modest design of this study, or a combination of these two factors.

Postpartum perceptions of infants were significantly more positive than prepartum perceptions. It is likely that increased experience with infants led to more positive perceptions in the postpartum period. Experience may promote positive maternal behaviors that optimize certain infant behaviors in a transitive fashion. Number of social supports, satisfaction with social support, and marital satisfaction had little predictive value in forming perceptions of infants.

Parenting support groups did not appear to have the effect of increasing number of social supports, satisfaction with social support, or marital support. Subjects appeared to enjoy the groups and found them
informative, but they did not "connect" socially outside of the groups. However, subjects did stay in touch with the experimenter, perhaps reflecting a need for a different type of social support during transition to parenthood than that provided by other parenting support group participants. It is possible that increasing numbers of social supports during the transition to parenthood increases life stress and is not adaptive.

An unexpected finding of this study was that women with low levels of marital satisfaction were more likely to experience Cesarean section birth. Women who experienced Cesarean section birth had consistently low levels of marital support. Low levels of marital support may have detrimental effects on important prenatal self-care behaviors or may result in anxiety during parturition which leads to prolonged labor, fetal distress, and surgical intervention. There was no relationship between social support or marital support and any infant biomedical status variables.

A number of issues associated with defining and measuring social support, marital support, and infant perceptions were explored. There is a need for better-designed studies utilizing control groups and different populations; perhaps studies of more at-risk groups would yield different results. Finally, the addition of convergent behavioral data, objective infant
assessment measures, information on maternal health characteristics, and personality measures, would make future research about relationships among social support, marital satisfaction, and perceptions of infants more meaningful.
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Maternal Demographics

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*Birth weight, in grams  
**Birth length, in centimeters
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TABLE 5

NPI Change Scores Correlated With Support Variables (SSQ-N, SSQ-S, LW)

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<th>C1,2</th>
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* NPI change score between Times 1 & 2
** NPI change score between Times 1 & 3
*** NPI change score between Times 2 & 3

None significant at p < .05 level
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By Support Number (SSQ-N)

Total NPI Score and Six Individual NPI Items

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Table 7

(by support satisfaction (SSQ-S))

Total NPI score and six individual NPI items
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</table>

**HIGH**

**LOW**
TABLE 9

Total NPI Scores and Six Individual NPI Items
Times 1, 2, and 3
Entire Sample

<table>
<thead>
<tr>
<th>Support Variable</th>
<th>Mean</th>
<th>SD</th>
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<td>Time 3</td>
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TABLE 11

Infant Biomedical Status Correlations
Birth Length (BL), Birth Weight (BW), Apgar1, Apgar 2, Length of Labor

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<th></th>
<th>BL</th>
<th>BW</th>
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<th>Apgar2</th>
<th>Labor</th>
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<td>-.45**</td>
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*p < .01

**p < .05
TABLE 12

Husband Attended vs. Husband Not Attended
SSQ-N, SSQ-S, LW, and NPI Scores

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<th>3</th>
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<td>M</td>
<td>SD</td>
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REFERENCES


Session I. Overview and Introduction

1. Why socially supportive parenting groups are important
   a. Talk about research on stress-buffering during transitions, facilitate coping via knowledge and support, appropriate parenting behaviors, self-evaluation through comparison
   b. Have participants introduce themselves
   c. Have each participant tell group 2-3 things about themselves
   d. Encourage sharing support outside of groups (trading phone numbers, due dates)

2. Goals of Groups
   a. Ask each participant what they'd like to get from groups and share their particular concerns
   b. Outline the problems and satisfactions having a baby brings, clarifying these, emphasize their normality, widen perceptions, provide skills training
   c. Outline topics of sessions, emphasize their flexibility, ask for suggestions
   d. Emphasize leader's role as facilitator and moderator, to maintain an atmosphere of openness and acceptance without pushing
   e. Emphasize need for participation, attendance, and feedback

3. Discussion -- What does a newborn look like?
   a. Do Newborn Quiz
   b. Go over normal peculiarities (skin, swelling, hair, head, elimination, jaundice, other)
   c. Go over newborn reflexes

4. Wrap up
   a. Hand out schedules of weekly topics
   b. Announce next week's topic
   c. Ask for feedback, concerns
NEWBORN QUIZ

1. The average infant urinates ___ times every 24 hours.
   (a) 5-10    (b) 10-20    (c) 20-30

2. What is "lanugo?"
   (a) Infant malnutrition
   (b) Downy hair often present on newborns
   (c) An obstetrical complication

3. Great care must be taken when handling an infant's head to avoid harming the fontanelles.
   (a) true
   (b) false

4. Most infants do not produce tears until about one month of age.
   (a) true
   (b) false

5. What is "vernix?"
   (a) A protective greasy coating
   (b) A common eye discharge
   (c) Part of the afterbirth

6. Vaginal bleeding in female infants is cause for grave concern.
   (a) true
   (b) false

7. It is common for the hands and soles of feet of newborns to peel.
   (a) true
   (b) false

8. What is the best treatment for a baby with "cradle cap?"
   (a) see a physician immediately
   (b) treatment with oil
   (c) treat with mild soap and water

9. Newborn jaundice is uncommon.
   (a) true
   (b) false

10. Most infant hernias require immediate surgical repair.
    (a) true
    (b) false
SOCIAL SUPPORT/PARENTING SKILLS WORKSHOP

OUTLINE OF WEEKLY TOPICS

WEEK 1: Introduction and Overview
- Getting to know each other
- Goals for groups
- Normal newborn peculiarities

WEEK 2: Changes in the husband-wife relationship
- Adjusting to mother role, identity crisis
- Adjusting to father role, expectations
- Importance of these different roles for the child
- Problem-solving approach to new challenges

WEEK 3: Infant social development
- Infant's strengths, capacities, contributions
- Development of independence, dependence, security
- Importance of reciprocity in parent-child relations

WEEK 4: Infant cognitive development
- Infant's drive for competence, desire to learn and explore, curiosity
- Facilitating gross and fine motor skills, language
- Child's own pace, cost of pushing too hard
- Importance of play with adults and peers

WEEK 5: Facilitating good behavior
- Parents' goals and values for children -- making them explicit
- Which childrearing strategies facilitate them
- Developmental changes in what is "good" behavior, necessary "bad" behavior, and appropriate ways to deal with these
- Parenting skills, parenting effectiveness

WEEK 6: PARENTS' CHOICE!
- One or two topics the group would like to explore in depth (e.g., evaluating daycare, etc.)
- Wrap-up and summary
Session II. Stress and the Mother/Father Role

Today's session will focus on life stressors, particularly the transition to parenthood, and the negative effects this stress can have on individuals and couples. We will explore our own life stressors in an effort to become more aware of them. A theory of helplessness and depression will be offered as an explanation for much of the distress new parents experience. Three coping strategies (role flexibility, problem-solving, assertiveness) will be offered as ways to exercise some control over stress.

1. Transition to parenthood — life stressors can be good AND bad events. Do SRE, discuss results.

2. Changes in the husband/wife relationship. Research suggests there is a moderate but significant decrease in marital satisfaction soon after baby is born; things improve about 4-5 months. But be aware of this possibility. Reasons? Fatigue, lack of sexual interest, social isolation, money problems, changes in self-perception, role overload (psychological responsibility for everything).

3. Crying babies can be stressful -- especially the approximate 2 hours per night when nothing seems to quiet them. Research suggests this is a discharge of tension necessary to allow baby to sleep. Can cycle all night with some babies. Putting baby to sleep on stomach can avoid some of the startles that start up crying during the night. Paradox is that when you are the most stressed, baby's crying seems the worst -- picks up on your tension. The good news is that babies who fuss a lot at night generally sleep sounder and longer than babies who do not. This lets up around 3 months of age. In addition, babies can kick, squirm and flail (you wonder what's wrong, anxiety) as much as 12 hours a day.

4. Adjustment to mother role — Initially lots of reinforcement for new motherhood, then you're just another new mother. Postpartum blues due to rapid shifts in hormones. Expect teariness, fatigue because of this, lack of sleep, and baby's demands. 25-50% of all new mothers experience some depression in the first 10 postpartum days. Loss of identity as a wage earner; for the first time in relationship you may be financially dependent. Temptation to become "Superwoman" -- not better or more advanced, just another source of role overload. Avoiding the trap of psychological responsibility, learning to delegate and then be quiet!

5. Adjustment to father role -- Little reinforcement from society (family, friends, co-workers) for being involved with newborn baby. Research suggests that average time new fathers spend with babies daily is between 37 minutes and 2 hours! No paternity leave in most companies. Inherent chauvinism even in books about babies ("everything a mother needs to know"). Even in labor room you can't express anxiety or fear -- supposed to be stalwart, the "coach," or you're useless. Afforded little hospital contact with baby. Despite all rational thought, you may feel overwhelmed by
financial responsibility, having to work all day while wife stays home with baby.

5. What is the mechanism by which the transition to parenthood stresses, depresses new moms and dads? Learned helplessness model of depression provides a good theoretical framework. Hardly anything can make you feel as helpless as an inconsolable baby and lack of sleep. Explain LH, do BDI.

6. Solution 1: Importance of androgynous parenting styles. This does not mean masculine mothers and feminine fathers. It means greater freedom to express a wide variety of behaviors. This exposure leads to children who are also more role flexible (e.g., working mothers have husbands who value work = good maternal role model for children, implicit approval by fathers that women are capable individuals).

7. Encouraging research findings for role-flexible, non-traditional couples:
   a. Evidence is that babies are just as attached to fathers as mothers; there is a difference in play styles.
   b. Children of dual career couples who are in daycare are likely to score higher on achievement tests and as better adjusted on personality measures. However, they DO get more colds!
   c. Despite what you might expect, no evidence that non-working moms have higher quality time with their kids. Multiple attachments (to non-parental caregivers) do not harm primary infant-parent relationship.
   d. Non-working moms much more likely to describe their role in terms of duty, sacrifice, and are more likely to be depressed. They also tend to personalize infant distress upon separation as a rejection of mother, and foster unhealthy dependence in children.
   e. Caveat — there's a big difference between a job and a career. What's crucial is that moms are happy doing what they're doing.

8. Happy husband-wife relationship positively related to good parent-infant interactions. Mother can do much to bolster or undermine father-baby relationships by the way she interprets the father to the baby and reacts to father-baby interactions. Parents can bolster or impede each other in fulfilling parental roles. Example: Mom criticizes how dad diapers baby. Alternatives: share what you know, stay out of room, leave house.

   a. Reframe stressor as a problem
   b. Generate solutions (brainstorm)
   c. Mutually choose one solution
   d. Implement solution
   e. Review
   f. If necessary, choose another solution
10. Solution 3: Assertiveness skills training. Note: This is the hardest to do with people close to you, major changes in interaction required.

11. Point out that it is natural at some point for babies to relate more positively to fathers than to mothers. Fathers who are gone all day provide infants with stimulating, physical play, and mom may be "old hat." May want to discuss mother's feelings about this and how to avoid negative consequences. Discuss importance of mother having other roles so as not to be overinvested in baby, or feel her identity is threatened by father-infant relationship.

12. Wrapup, announce next week's topics.
Schedule of Recent Experience
Part A

Instructions
Think back on each possible life event listed below, and decide if it happened to you within the last year. If the event did happen, check the box next to it.

Check here if event happened to you

Mean Value (Use for scoring later)

1. A lot more or a lot less trouble with the boss.

2. A major change in sleeping habits (sleeping a lot more or a lot less, or change in part of day when asleep).

3. A major change in eating habits (a lot more or a lot less food intake, or very different meal hours or surroundings).

4. A revision of personal habits (dress, manners, associations, etc.).

5. A major change in your usual type and/or amount of recreation.

6. A major change in your social activities (clubs, dancing, movies, visiting, etc.).

7. A major change in church activities (a lot more or a lot less than usual).

8. A major change in number of family get-togethers (a lot more or a lot less than usual).

9. A major change in financial state (a lot worse off or a lot better off than usual).

10. In-law troubles.

11. A major change in the number of arguments with spouse (a lot more or a lot less than usual regarding child-rearing, personal habits, etc.).

12. Sexual difficulties.
Schedule of Recent Experience  
Part B

**Instructions** In the space provided, indicate the *number of times* that each applicable event happened to you within the last two years.

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<th>Number of times</th>
<th>Mean Value</th>
<th>Your score</th>
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<td>13. Major personal injury or illness.</td>
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<tr>
<td>14. Death of a close family member (other than spouse).</td>
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<tr>
<td>15. Death of spouse.</td>
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<tr>
<td>16. Death of a close friend.</td>
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<tr>
<td>17. Gaining a new family member (through birth, adoption, oldster moving in, etc.).</td>
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<tr>
<td>18. Major change in the health or behavior of a family member.</td>
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<tr>
<td>19. Change in residence.</td>
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<tr>
<td>20. Detention in jail or other institution.</td>
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<tr>
<td>21. Minor violations of the law (traffic tickets, jaywalking, disturbing the peace, etc.).</td>
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<tr>
<td>22. Major business readjustment (merger, reorganization, bankruptcy, etc.).</td>
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<td>24. Divorce.</td>
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<tr>
<td>25. Marital separation from spouse.</td>
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<td>26. Outstanding personal achievement.</td>
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<td>27. Son or daughter leaving home (marriage, attending college, etc.).</td>
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<td>28. Retirement from work.</td>
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<td>29. Major change in working hours or conditions.</td>
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<tr>
<td>30. Major change in responsibilities at work (promotion, demotion, lateral transfer).</td>
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<tr>
<td>31. Being fired from work.</td>
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<tr>
<td>32. Major change in living conditions (building a new home, remodeling, deterioration of home or neighborhood).</td>
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</tbody>
</table>
33. Wife beginning or ceasing work outside the home.

34. Taking on a mortgage greater than $10,000 (purchasing a home, business, etc.).

35. Taking on a mortgage or loan or less than $10,000 (purchasing a car, TV, freezer, etc.).

36. Foreclosure on a mortgage or loan.

37. Vacation.

38. Changing to a new school.

39. Changing to a different line of work.

40. Beginning or ceasing formal schooling.

41. Marital reconciliation with mate.

42. Pregnancy.

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Mean Value</th>
<th>Your Score</th>
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<tbody>
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Your total score

Scoring

The "Mean Values" for each life event are listed below. Write in the mean values for those events that happened to you. For items in Part B, multiply the mean value by the number of times an event happened, and enter the result in "Your score."

Add up the mean values in Part A and your scores in Part B to get your total score.

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The more change you have, the more likely you are to get sick. Of those people with a score of over 300 for the past year, almost 80 percent get sick in the near future; with a score of 150 to 299, about 50 percent get sick in the near future; and with a score of less than 150, only about 30 percent get sick in the near future. So, the higher your score, the harder you should work to stay well.

Stress can be cumulative. Events from two years ago may still be affecting you now. If you think this applies to you, repeat this test for the events of the preceding year and compare your scores.
BECK INVENTORY

Name ___________________________ Date ______________

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. O I do not feel sad.
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2. O I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel that the future is hopeless and that things cannot improve.

3. O I do not feel like a failure.
   1 I feel I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4. O I get as much satisfaction out of things as I used to.
   1 I don't enjoy things the way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied or bored with everything.

5. O I don't feel particularly guilty.
   1 I feel guilty a good part of the time.
   2 I feel quite guilty most of the time.
   3 I feel guilty all of the time.

6. O I don't feel I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

7. O I don't feel disappointed in myself.
   1 I am disappointed in myself.
   2 I am disgusted with myself.
   3 I hate myself.

8. O I don't feel I am any worse than anybody else.
   1 I am critical of myself for my weaknesses or mistakes.
   2 I blame myself all the time for my faults.
   3 I blame myself for everything bad that happens.

9. O I don't have any thoughts of killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.
Beck Inventory (Con't.)

10. 0 I don't cry anymore than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12. 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.

13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

14. 0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15. 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less.
Yes ________ No ________
Beck Inventory (Con't.)

20.  0 I am no more worried about my health than usual.
     1 I am worried about physical problems such as aches and pains; or
     upset stomach or constipation.
     2 I am very worried about physical problems and it's hard to think
     of much else.
     3 I am so worried about my physical problems, that I cannot think
     about anything else.

21.  0 I have not noticed any recent change in my interest in sex.
     1 I am less interested in sex than I used to be.
     2 I am much less interested in sex now.
     3 I have lost interest in sex completely.
SESSION III. INFANT SOCIAL DEVELOPMENT

Tonight's session will deal with infant social development. First, I will talk about research evidence suggesting that infants are biologically prepared for social interactions, and that they have clear expectations about how those interactions should be conducted. Next, I'll be talking about "reading" your infant's social cues. Understanding what baby is trying to tell you can help build trusting, meaningful social interactions with your baby. Finally, I'll be talking about differences in infant temperament and what parents can do to respond optimally to easy, difficult, and slow-to-warm-up babies. Throughout, keep in mind that good relationships result from a "goodness of fit" between infant/parent characteristics.

A. Active social communication of the newborn
   1. Videotape — As early as the first day of life, human neonate moves in precise and sustained movements that are synchronized with the articulated structure of adult speech. This synchrony occurs with American and Chinese speech, but not for nonsense sounds or tapping.
   2. Newborns imitate certain adult facial gestures - sticking out tongue and opening mouth. "A mechanism by which to identify with other human beings, to recognize them as 'like me.'"
   3. Like adults and children, infants are primed to expect direct eye contact in interactions. They prefer, in photos, videotape or in person, to look at full-face presentations rather than at profile or half profile shots.
   4. Infants expect interactions to be two-sided. If you inadvertently interrupt baby's vocal or behavioral outburst, you may notice that it produces an abrupt headturn. This expectancy forms the basis of an important skill: how to play speaker or listener (turn-taking).

B. Building predictability into your social interactions with your baby provides a series of dependable anchors around which he can begin to structure his inner and outer life. He learns through his parents' consistency that each day has a regular, recurring schedule of events (napping, feeding, playing); this helps him to begin organizing his own biological and social urges into a coherent pattern.

C. Knowledge of a day's pattern creates a reassuring quality of "what's next" — predictability helps him feel secure, nurtures a sense of patience, and helps him develop his skills (e.g., mutual gazing -- if you look away from a toy, it's still there, but a person might walk away). He learns that in order to conduct a joint activity with another person, you have to pay attention to their behavior. A parent who looks away when the phone rings or answers the door when baby smiles confuses the baby.

D. Distress-relief predictability -- infant learns two things: (a) holding and comforting allows child to recognize parent, (b) learns
that crying leads to a specific response (pick him up); a negative state becomes a positive one! Research: infants whose distress cries are responded to promptly and predictably had by age one switched from crying to more mature forms of vocalization.

E. Infant cues and signals

1. Head slumped on chest, eyes glazed: Probably signals a mildly aversive reaction to an environmental element which the upset baby is trying to tune out. Is it nap or bedtime? Too much noise or sound?

2. Head slumped on chest, eyes alert: Sign of awakening interest and curiosity. Needs some physical contact to rouse him, like stroking or gentle rocking.

3. Head turns: Cyclical turns distinguished by frequency; normal part of interactive behavior. Commonly, characterized by brevity, lack of sharpness, incomplete turn, willingness to turn back to partner, will return to interaction voluntarily. Aversive head turns are full 90 degrees to the side, if followed into turn by partner he will keep turning away. Extreme emotional distress, be quiet and wait for baby to initiate further action.

4. Yawns, hiccups, sneezes, coughs: Not as they are for adults. Invasion of personal space or stress.

F. Differences in infant temperament -- biologically determined, but temperament is influenced by baby's interaction with parents, which may either intensify or modify his original temperament.

G. Nine categories of infant temperament, each rated on 3 pt. scale (high, medium, low). Emphasize: All ratings represent differences within normal range of behavior. Thus, temperamentally high activity is a normal trait, as distinguished from the pathological type of overactivity constituting hyperactivity. Most children's ratings in the normal range.

H. Three combinations of temperamental characteristics that appear to influence a child's behavior -- easy, difficult, and slow to warm up child.

1. Easy: Regular biological functions, positive approach to most new situations, mild mood predominant, quickly develop regular sleep/feed cycles, take to new foods easily, smile at strangers. About 40% are easy.

2. Difficult: Irregularity in biological functions, negative reactions to new situations, slow adaptability to change, irregular sleep/feed cycles, dislike new foods and routines, lots of loud crying and laughter, typically have tantrums. About 10% are difficult. Parents DO NOT produce this pattern, although the way they respond may minimize or exaggerate these features, do best with consistency and routine.
3. Slow to warm up: Negative to new situations and people, adapt slowly, mild rather than intense reactions and fewer sleep/feed problems, withdraws when frustrated or upset, may fuss rather than tantrum, usually appear "shy." About 15% are this type.

4. Not all children fit into these groups. Some children show other combinations of attributes, especially in the moderate range, that do not make for neat labels.

5. However, these three temperaments have been cross-culturally demonstrated in Canada, Japan, India, Israel, Taiwan, and Kenya.

I. Caveats for parents:

1. Don't assume that if your child behave differently than you expected and hoped, you have been a "bad" parent. Be skeptical of explanations and books that blame your "unconscious."

2. Don't assume your child is behaving that way to upset you and could behave differently if she really wanted to.

3. Realize your child isn't you, and may not live up to your hopes and dreams. Loving a child means doing your best and letting the child be who he really is.

J. EXERCISE: List 5-10 characteristics you'd like your baby to have. Rank order them in importance. Compare them with spouse. What does this tell you about you, your expectations, and values? Keep these in mind when interacting with baby.

K. Talk about parenting styles, if there's time.

L. Wrap up.
SESSION IV. COGNITIVE DEVELOPMENT

Tonight I will be talking about infants' and parents' contributions to cognitive development. Most systematic research on infant cognitive ability stems from Piaget's observations and theory. We will take a month by month perspective on Piaget's theory and offer suggestions for play that facilitates cognitive growth. Last, we will discuss how the acquisition of language fits into this framework.

A. Infant's contribution. When is your baby learning? ALWAYS. The quality and quantity of what the child masters in the first two years of life is astonishing. Even children in deprived environments learn to walk and talk at about the same period. They do this without reinforcement, praise, or teaching. How do you teach a child to talk, define differences between a dog and cat? You don't -- just talk and point and act and the infant does the work of figuring out what the rules are for deciding appropriate/inappropriate behavior, how to distinguish between animals, or transform a verb into past tense. Babies are not deterred by the immensity of this job, and practice each task endlessly until exhausted. He rocks back and forth, tries to crawl, propels himself onto his head, then dauntlessly starts all over again. The infant is motivated to become competent, to have an effect on the world, needs to explore, and is incredibly curious.

B. Parents' role. The goal is to understand baby's progression through development sequences, provide a stimulating environment that is suited to his individual style and ability, and provide enjoyable challenges. Talk about:

--Providing him with basic needs so that his energy is not all spent on trying to get someone to pay attention to or feed him
--Vary his physical and social world
--Allow him to explore without excessive restrictions
--Provide materials suited to his interest (small number, wide variety, changed frequently)
--Encourage him to try new behaviors, even if he is not yet skilled
--Follow his interests, imitate and expand, listen
--Challenge him with the next step
--Talk to him, label, describe
--Let him know you think his activities are worthwhile, even if he's not playing with a toy "the way he's supposed to"

C. Piagetian framework of cognitive development -- The first two years of life are the "sensory-motor" period, because the infant learns about the world gradually through his senses and the motor activities of his own body. This period divided into six stages, to which chronological ages are roughly assigned. There is a good deal of overlap in these stages, and the rate at which they are reached can vary from baby to baby and culture to culture; however, they are invariant and cross-cultural phenomena. Each stage is "the fulfillment of something begun in a previous one and the beginning of something that will lead on to the next."
D. Stage 1 — Birth to 1 Month: The beginning of intelligence lies in adaptive responses (sucking, crying, grasping, swallowing). Baby at breast learns his first lesson about the location of objects (nipple) in space. Soon learns to turn head to side where he feels the breast and develop a sense of laterality (sidedness). A baby may nurse on his own fingers for comfort, but cries for the breast when hungry, showing discrimination. Crying eventually leads to vocal experimentation, the precursors of language. Babies are completely self-involved and oblivious to things around him. He is occupied with struggling to adapt to this new environment. Touch is the only "language" he understands. Close, secure holding and skin-to-skin contact reassures leads to recognition of caretakers and the establishment of bonds. However, baby does not recognize you as separate from himself.

TOYS: Humans are the best toys! Rocking chairs are great for parents and baby. Also swinging cradles (@60 swings/min is best). Oblivious to toys and mobiles (meaningless viewed from beneath).

E. Stage 2 - 1-4 Months: Baby becomes better company and has first social smiles, later may begun chuckling and laughing. But can also dissolve into tears if tired or frustrated -- learn to read his body language. A hungry or tired infant is in no mood to play. By accident, probably while flailing, baby's hand ends up in his mouth and he can suck it. He likes this and will watch his hand down, control it, and direct to his mouth, finally achieving mastery of this move. "It is no longer the mouth that seeks the hand, but the hand that seeks the mouth." Sensory sucking behavior is joined with motor control of hand to form a new sensory-motor schema. Typical -- baby, in process of trying to achieve control over movement, accidentally produces a new result. Through repetition, first jerky then coordinated, he achieves smooth control. He is modifying his movements to adapt to new objectives, and expanding his repertoire of behaviors (visually directed reaching and grasping). He also learns to look around in response to a sound or suck at the sight of a bottle (the learning of anticipation). Builds onto grasping/sucking (rattle). Soon eyes take precedence over mouth as principal organ of learning. At 3 months there is a critical stage in neurological maturation that facilitates perceptual and learning capabilities. Infant will stare at patterns or visually track objects and actively seek stimulation.

TOYS: Make sure everything is safe, nontoxic paint, won't choke baby, safe to put in mouth. Sturdy plastic measuring spoons, safety rattles, baby mirrors (like to look at selves) are good. Sit in front of baby and hold a bright object about 10" from his face, move it in a 180degree arc. Watch how well he tracks it. Repeat to see if his eyes linger at the point where the object disappears behind his chair. Then try passing it behind him and see if he turns his head to expect its reappearance. Probably won't until 4-5 mos old, but when he does he is able to anticipate an object's path in space. Hold things out for him to grab and notice his response. DON'T PUSH TOO HARD! Match stimulation to his
state and level of development. Most fun for baby are games helping him to define the limits of his own body, like peek-a-boo. Pat-a-cake and this little piggy help him become aware of his fingers and toes.

E. Stage 3 - 4-8 Months: Crawling and standing increases baby's mobility and enlarges his world. Sitting up, can see legs and feet easier. He learns things look different from underneath when crawling (learning under, over, inside, and other concepts). The more experience he gets, the more opportunity to construct new knowledge. Don't pen up in a playpen, childproof house and let him explore. More efficient use of hands -- used to drop something to pick up another, now learns to transfer to another hand and then pick another object up. He may shake everything he picks up to see if it makes noise (relationship between how hard you shake and amount of noise!). Classification schema: objects to shaken or objects to be sucked, and growing awareness of relationships (harder, slower, louder, etc.). First faint connections between cause and effect, but only dim. Baby kicks mobile and it sways, he kicks feet and curtains sway (breeze) once but not later. He does not yet conceive of the curtain as existing separately from himself. Out of sight, out of mind -- objects do not exist if he can no longer see them. Gradual acquisition of object permanence. Peekaboo as a way to learn parent will return, builds trust in a safe dependable world and permanence of objects that remain stable whether he sees them or not. Gradual realization of separateness from mother, leads to exploration of eyes, ears, nose, studies faces closely. With this awareness comes emotional need to cling to this special person and he no longer goes to just anyone. He prefers to sit on mother's lap and study strangers for a while. Peaks at about 8 months. Importance of caretakers who know child.

TOYS: Colorful posters, then gradually smaller interesting figures like mobiles of fish or birds. Toys that promote listening (music box with a chain baby can pull). Cradle gyms. At 4-5 months, simple picture books (a ball, truck, kitten) are good. "Read" stories, but have heavy, non-rippable pages. 4" ball, but will probably ignore it if it rolls under couch. Play "hide the bunny" under cushion, let it stick out a little. As he gets better at this, hide under a light cloth diaper. Helps develop a memory image of bunny in his mind, even when it's out of sight. For games, use a toy baby is actively playing with and is eager to keep in sight. If interest wanes, let him play with toy or hide it while you search. If he's frustrated, stop and wait a week and try again. Pour water thru funnels and strainers and into different sized containers in bath (concept of quantity).

F. Stage 4 - 8-12 Months: Cuddly baby becomes a human dynamo - he's everywhere! A low footstool helps him climb on the couch. By combining vision with locomotion, he is beginning to construct a three dimensional world. Looking at furniture from all sides and positions, he sees many facets of them that were not apparent before. We see the emergence of intentional, purposeful, goal-oriented behavior. It's different however, to proceed toward a visible goal (getting up on couch) and an invisible one (hidden object). Hide under Cushion A, then B, child still looks under A
(even at 9-10 mos). Example: Where is papa? He's right there, but child points upstairs to office. Baby fascinated by stairs and learning what up and down means. Allow him to explore safely. Mobility promotes fine motor coordination and pincer movements -- tearing things up, dropping beads into a can, opening and closing drawers, latches and hinges. Will want to feed himself. Imitation of models emerges -- hitting two blocks together. Will also imitate speech sounds (not well) but occasionally you'll recognize a word (Damn!). Imitation is important because it indicates the beginning of memory and representation. Baby has an image, a model which he remembers and represents with his own actions. Vocal imitation is important for language development. Talk to your baby! Even before he speaks, he understands "receptive language" ("time for lunch," "where's daddy," "point to your nose."). May become attached to a blanket or toy, which reminds him of mother when he is stressed or tired. Usually outgrow by four, don't force him to give it up.

TOYS: Learning up to now occurs without any special attention. Now it's important to provide safe, stimulating materials to be discovered and manipulated. Nesting toys or colorful plastic donuts on a spindle are good, as are sorting boxes with blocks that fit into different shaped holes (teaches seriation, concept underlying concept of number). Classification skills come from toys requiring sorting by shape or color. Blocks are good choice and teach baby how same shapes can be reformed into other shapes. Play hide and seek or hide toys under one of three covers, but DON'T PUSH or frustrate child. Child will not master this until well into his second year.

G. Stage 5 - 12-18 Months: Onset of walking and the problem of how to get back down again. Baby learns to coordinate all of these movements smoothly with practice. Previous exploration involved taking things apart, now he wants to put them back together again. Will stack, rather than knock over. Will watch his movements in a mirror and try to sort out what's him and what's the image. Exploration becomes more scientific and less repetitive, puts together motor sequences in novel ways. Rather than pushing parent's hand or his own to get things, he'll use sticks or strings to accomplish his objectives (pull blanket on which toy rests to get it). Helps child learn that objects have their own properties apart from his actions on them. He follows the results with his eyes and begins to anticipate where the dropped cookie will land, and return to where an object was last hidden to find it. Will wander away from mother but periodically return to see where she is; if she's gone he might stare at the doorway, conjuring up a mental image of her to comfort himself. The beginning of "No" and autonomy.

TOYS: Aids to locomotion like kiddie cars, wagons, carriages. Imitation with miniature wheelbarrows or popping vacuum cleaners. A 2 step stool is safer than climbing on unstable things. Toys to develop muscle development (balls, peg pounders) are good. For fine motor, pegs or wooden beads too big to swallow. Anything that can be taken apart and put together (percolator). Photo albums build recognition of family members. Counting and alphabet games.
Obstacle games are good. Build a low wall of hollow blocks or put a clear lucite cutting board between child and favorite toy. He sees toy but can't get it and has to figure out an alternate approach to getting it. When he begins searching for unseen toys by himself, with a clear, intentional plan of search, he has achieved object permanence.

H. Stage 6 - 18-24 months: By middle of second year, child gets around efficiently. May not have much language, but makes his intentions known with gestures and intonation. Child experiments less on external, physical level and more on internal, mental level. The appearance of representation -- stuffed animal is a baby, a stick is a gun. Emergence of independence ("No!") but paradoxical emotional dependence and fear of being separated from parents.

TOYS: Toy telephones encourage language skills. Simple sturdy puzzles help child reconstruct a picture from the memory image in their minds. Big colored wooden beads on a string challenge small fingers. Pre-twos should spend lots of times outdoors in active play; beginning of cooperative play with peers and imitating older children. Sand and water play is valuable for learning about changing quantities and qualities -- changing in appearance in different sized containers, wet sand sticks together, etc. (child will be 6-7 before he masters this). Basters and egg beaters are good for water play, as are hoses with adjustable sprays.

LANGUAGE

A. Children tend to talk sooner if they're spoken to. Deprived of speech, will develop late or poor speech. This doesn't mean Sesame Street, FM radio, background noise, but real speech. Most begin speaking about 1-1/2 to 2, as sensory motor stage ends. Language appears along with the other symbolic functions such as imitation and make believe play. When toddler says "where doggie go?" it means he knows his dog has an independent existence, retains a mental image of the absent dog, and can supply the correct word for it.

B. At 1 month baby will begin to babble, vowel sounds with consonants gradually added. He will repeat these just as he does motor movements and will gradually add to his repertoire. These vocalizations will become increasingly more complex and acquire inflection. As teeth appear and baby gains control over muscles of lips, tongue and palate, he will produce a greater variety of sounds. When he can sit up at 6 months, it is easier to move his own lips and observe others. We begin to hear p, b, m, and f, s; then o, oo, ee. At about 8 months baby stops babbling nonsense sounds and repeats only sounds he hears other people make. Even deaf babies go through the babbling stage, but do not develop beyond this stage because they get no feedback. TALK TO YOUR BABY!

C. First words are usually mama, dada, papa. First attempts will be hard to understand "buh" for bug or bottle, "gah" for car. To know the names of things is power and the child delights in his parents' happiness when he speaks correctly. Difference between
receptive speech ("time for bed" = builds temporal predictability) and expressive speech. Even if still gibberish, you might be amazed to recognize imitations of your own panic or fury in moments of emotional stress. They will repeat odd phrases "fasten seat belts" or "it's nutritious."

D. Beginning of real communication about 1-1/2 to 2 years old. Usually are 1-2 words used with gestures or expressions to signify meaning:
--"eat" = I want to eat, you eat it
--"out" I want to get out
--"Daddy car" Daddy's car, or Daddy's in his car
-- "Mommy sock" Mother putting sock on child

E. Leaves out nonessential words (pronouns, prepositions, articles), concentrates on nouns and verbs, telegraphic speech. Universal, cross-cultural stage.

F. About age 3, vocabulary about 1,000 words. Sentences of 3-7 words appear, prepositions and articles appear, and correct verb conjugation. Don't succumb to temptation to repeat baby talk, instead correct gently and firmly.
SESSION V. EFFECTIVE PARENTING SKILLS

A. Good and Bad behavior

1. What do you mean when you say a baby is "good?" What kinds of behaviors would you describe as "bad?"

2. What do you consider negative but tolerable?

3. How would this differ for a toddler? For an older child or teenager?

Standards and expectations for behavior changes with the child's changing needs and developing capacities. Our ways of dealing with the child need to adapt to these developments. Whatever the developmental level, certain parenting styles can either promote or inhibit effective family functioning.

B. Parenting skills questionnaire -- talk about parenting styles.

1. Autocratic: Desires absolute control, a dominating, authoritarian figure who uses reward and punishment as tools to enforce orders. Children are told what to do, how to do it, where to do it, and when to do it. No room to question, challenge, or dissent. Assumption: people are at worst evil, or at best dangerous, emphasizes limiting child's behavior. Obedience is the goal and children are believed to learn this best through a mixture of rewards and punishments. Keyword: breaking the child's will. Child has very little freedom, very few choices. Limits without freedom. Mutual anger and frustration characterize this interactive style. Saves the child from the pain of making poor choices, but then child never learns responsibility for his choices.

2. Permissive: React strongly against harsh and uncompromising character of the autocratic method. Assume people are basically good but are capable of self-regulation. Given sufficient freedom, children learn through their own direct experience most of what they need to learn. Individual liberty is of paramount importance. Kids "do their own thing." Order and routine are minimal, few limits to anyone's freedom are imposed. Parents as doormats. Drawback: produces insecurity in children, they grow up having almost no sense of belonging, responsibility, or cooperation. Freedom without limits. They are never held responsible for the results of their choices.

3. Democratic: Synthesis of the autocratic and permissive. Freedom is an ideal, but so are the rights and responsibilities of others. Reasonable limits placed on individual freedom for the good of the group. Neither dictator nor doormat, the parent in a democratic family is a leader who encourages cooperation and facilitates learning. Establishes order and routine, using discipline that respects those who are led. Emphasis on choices, logical consequences for failure to consider others' rights.

4. Discuss parents' scores and what differences mean. Many parents
swing back and forth between permissive and autocratic styles, depending upon frustration level at the time. Without a clear approach to parenting, it's easy to do. A clear set of principles, mutually agreed upon, makes you a more consistent parent.

5. Examples of parenting styles:

a. Child won't come to dinner, mother smacks his bottom (autocratic).

b. Child won't come to dinner, dad cajoles, then finally makes something different for her (permissive).

c. Child dinner starts at 6:30; if not there, next chance to eat is 7:30 next morning (democratic). NOTE: In this example mom experiences neither the pitfall of fighting or giving in. Instead, she decides what SHE will do, and lets child decide what HE will do. Sidesteps challenge, goes about her business and serves dinner to those family members who choose to follow her reasonable guidelines. Choices will be a big issue in the future -- drugs, sex, etc. We owe our children practice in making good choices.

d. CAVEAT: Don't get carried away and make everything a choice. Sometimes children want and need a firm but friendly decision from a parent, particularly true in matters of health and safety. We will discuss these later.

C. Problem Ownership -- When conflicts arise, it is important to determine whose problem it is. Who owns the problem, the parent or the child? The answer shapes what response, if any, the parent needs to make.

How do determine whose problem it is? (1) who is this behavior interfering with directly? (2) who is raising the issue or making the complaint? (3) whose purposes are being thwarted? (4) who has the negative feelings?

1. The child owns the problem if he is thwarted in satisfying a need. It is not the parent's problem because the child's behavior in no way interferes with parents' satisfying his own needs. It is the child's problem. Parents find it extremely difficult to let children own their own problems. We feel sorry when the child is having difficulties and want to ease his way.

   For example, a baby who is frustrated because he can't fit the cups into each other or his mouth. What role should the parent take -- neither problem-solver or problem-avoider. If you jump in, baby never learns how to do it. If you take the toy away to "save" him, he never learns. Importance of child as the initiator, communicator, problem-solver.

2. The parent owns the problem if the child is satisfying his need, but his behavior is a problem to the parent because it interferes in some direct way with the parent satisfying a need of his own.

   For example, baby playing with an expensive vase or emptying the cabinets for the 15th time that day.
Clues for when it is the parent's problem: you sense your own inner feelings of unacceptance, feel annoyed, frustrated, resentment, tense, experience dislike, or closely monitor his behavior. Defining the problem as the parent's problem does not mean he needs to stop having negative feelings and accept everything that the child does to satisfy his needs. That defines the PERMISSIVE parent — unwilling to teach the child when his behavior needs to be limited, that the needs and rights of others in his social world are respected.

When the problem belongs to the parent, he is the imitator, influencer, communicator, problem-solver. He communicates to the child his own needs, communicates an understanding of the child's needs and a respect for them, and searches for a mutually satisfying result.
A. Temper tantrums — An unfortunate term that implies the child is naughty, should have better control over his behavior, is manipulative. However, anything that happens with this frequency is not aberrant, but common to all children. Study: 60% boys, 45% girls have tantrums frequently at age 21 months, were also frequent in 70% of all 3 year olds.

In children under 3, a temper tantrum is very close to an emotional "blown fuse." It is what happens when the load of frustration within the child builds up to such a tension that only an explosive discharge can release it. A true tantrum is not within the child's control at all, and it is an event that is far more unpleasant for him than for his embarrassed or infuriated parents.

Any infant having a tantrum is, for the moment, lost to the world. He is not open to exhortation, scolding, shouts, smacks. He is overwhelmed by his own internal anger, and most likely terrified by it. He seems to feel as if he'd like to kill everyone and destroy everything. It's the parents' job to prevent him hurting himself or anybody/anything else. The child cannot recover himself to discover proof that he is dangerous. A broken vase, a lump on his head, a scratch on mom's face are proof of his horrible power and evidence that even his mother cannot control him.

May be best to hold him, on the floor, secure in her arms. As he calms down, he finds himself quite close to you. Everything is quite unchanged by this frightening storm. Slowly he relaxes, screams subside into sobs, the furious monster reverts to a pathetic baby who has frightened himself silly.

Unfortunately, babies do not often find the world unchanged by their storm. Anger provokes anger — 50% of mothers in previous study lost their temper, giving shout for shout and hitting their one year olds. During a tantrum, punishment and anger are totally ineffective. When it is over, they only increase the child's feeling that the world is aggressive and dangerous, and that he is one of its angriest and most dangerous occupants.

Many mothers find tantrums alarming and embarrassing — can't take child to mall because he wants candy. Such an attitude is disastrous. The child who finds that the horrible experience of a genuine, uncontrollable tantrum actually serves as a way to control his mother, and getting what he wants, would not be human if he didn't move toward the semi-voluntary tantrums typical of mishandled 4 year olds. Such a child "works himself up" on purpose to a point where he genuinely does lose control.

The child has to learn from the first that tantrums are terrible for him, and have absolutely nothing to do with getting what he wants. He needs comfort and love afterward, but should never get sweets or any other kind of reward afterward. His behavior should have neither a positive or a negative effect.

Tantrums can arise from "painting a child into a corner." Very
few issues are worth a direct clash. Safety, cruelty, and reasonable peace for everybody are obvious issues. But most can usually be dealt with by diversion and friendly talk. Ask yourself "Why can't he? Is it really that important to me if he does?" (example: mother who won't open sandbox for child, then does so after tantrum. Child is learning to manipulate mom).

Tantrums teach a child nothing good or useful, they are essentially unpleasant and unconstructive. As your child becomes more competent, he will more effectively deal with his dependence and anxiety, his independence and frustration. When he is old enough, he will manage his own body and emotions easily enough, and will not meet so much frustration that engenders frustration. When he can talk about what he is thinking and feeling, he will be able to accept reassuring WORDS instead of parents' continual physical closeness, and remonstrating words instead of physical restrictions.
PARENTING STYLE QUESTIONNAIRE

As you read each statement, decide how much you agree with it. Then write, in the blank provided, the number from 1 to 5 that corresponds with your agreement:

1_strongly disagree  2_disagree  3_neutral  4_agree  5_strongly agree

1. It is better to give a little ground and protect the peace than to stand firm and provoke a fight.

2. Children need discipline that hurts a little so that they will remember the lesson later.

3. Children shouldn't always get their way, but usually we ought to learn to listen to what they have to say.

4. The parent-child relationship is like a war in which if the parent wins, both sides win, but if the parent loses, both sides lose.

5. If parents provide a good environment, children will pretty well raise themselves.

6. The parent's role is like that of a teacher who is preparing the child for a final exam called life.

7. Childhood is so short that parents should do everything to make it a happy time.

8. Spare the rod and spoil the child is still the best policy.

9. Children need to learn what they may or may not do, but we don't have to use punishment to teach.

10. Whether we like it or not, children have the last word about what they will or will not do.

11. If you let children have a pretty free reign, they will eventually learn from the consequences of their behavior what is appropriate.

12. Children first have to learn that the parent is boss.

13. Too many children today talk back to their parents when they should just quietly obey them.

14. If we want children to respect us, we must first treat them with respect.

15. You can never do too much for your child if it comes from genuine love.

Autocratic  (2)+(4)+(8)+(12)+(13)=

Permissive  (1)+(5)+(7)+(11)+(15)=

Democratic  (3)+(6)+(9)+(10)+(14)=


SESSION VI. PARENTS' CHOICE

A. Evaluating Day Care -- Statistics:

1. 32,000 day care centers in U.S.
2. 2 million kids <3, @3/4 million <1
3. By 1990, half or more kids <1 will be in a day care center
4. Studies show no bad effects, but studies tend to focus on kids in university-affiliated centers
5. Distinguish between those affiliated with university, church, private

B. Physical Attributes of a good center

1. Clean, attractive, well-lit
2. Space—Harvard study suggests 100 square feet walking/crawling space per kid (e.g., 20 babies=2,000 sq ft).
3. Rocking chair to playpen ratio: lots of chairs means babies are routinely rocked/cuddled, vs. being restrained.
4. Most facilities claim to separate kids by age groups; look for room dividers, sliding walls, etc. for proof. Best if separate groups for 3-6 mos. and 7-12 mos. groups.

C. Desirable Qualities in Day Care Staff

1. Continuity of care -- high turnover makes attachment to a single figure difficult (infant anxiety). Also beware of places depending heavily on part-time help. The daily presence of the same reassuring face is the single most important element in your baby's successful transition to day care. Also reassures you as a parent that will know kid well enough to identify subtle behavioral changes. YOU will communicate with caregiver better, make most of limited opportunities to talk about baby.
2. Child-Adult Ratio: For infants, should be 3:1 -- ensures has enough time to provide each baby with individual attention.
3. Staff with a high preponderance of psychology and child development degrees. In absence of this, does the caregiver have children of his/her own?

C. Double Checking

1. Ask for names and telephone numbers of other parents whose kids currently stay there.
2. Drop in and watch them in action.
3. Be extremely wary of centers that refuse these tactics.

D. Baby Nurses or Other In-Home Caregivers

1. One of the largest single sources of caregivers -- 1/4 all families with children.
2. Examine your own ambivalence about being "replaced" by a surrogate -- not there to supplant, but to supplement.
3. Ask for references -- aim for someone who can see baby
through critical first year. Avoid those who change every six months or so.

4. Trial period -- possibly 3-4 weeks. Figure how receptive she is to your baby. Be alert for signs of growing involvement (checks on him while he's sleeping); also monitor infant's response to caregiver.

5. Make sure the caregiver shares your values (childrearing philosophy, family life, religion, feeding on demand instead of a rigid schedule). Discipline in particular a big issue -- be wary of those using words like "spoiled" or "too demanding" or who thinks it's a good idea to let baby "cry it out." One uneasy with father's attempts to be involved should be avoided -- likely to resist dad's efforts to be involved with baby.

D. Grandparents -- Research shows it's not like "The Waltons." "On important issues of child rearing, such as discipline and skills training, not only do grandmothers and their adult daughters often disagree, usually they are also unaware that they disagree."

Have a frank and honest discussion with grandparent caregivers, since they CAN contribute in 3 areas:

1. Playmate -- better than parents at letting baby take the lead in playing/learning exchanges. Have an open-ended, unstructured quality that babies like.

2. Family Historian -- Source of knowledge about values, ethnic heritage, and family traditions. Helps child see herself in context of world at large.

3. Buffer and negotiator -- Mediator when parent-child conflicts over minor issues get out of hand.

E. Play Groups

1. Make sure they're small (2-4)
2. Bigger toys, at least one for each baby
3. Better if babies have met socially before and aren't complete strangers.
APPENDIX B
1. Check the dot on the scale below which best describes the degree of happiness, everything considered, of your present marriage. The middle point, "happy," represents the degree of happiness which most people get from marriage, and the scale gradually ranges on one side to those few who are very unhappy in marriage, and on the other, to those few who experience extreme joy or felicity in marriage.

Very Happy

Unhappy

Perfectly Happy

State the approximate extent of agreement or disagreement between you and your mate on the following items. Please check each column.

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<tr>
<th>Item</th>
<th>Always Agree</th>
<th>Almost Always Agree</th>
<th>Occasionally Disagree</th>
<th>Frequently Disagree</th>
<th>Almost Always Disagree</th>
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<td>9. Ways of dealing with in-laws</td>
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10. When disagreements arise, they usually result in:
    Husband giving in    Wife giving in    Agreement by mutual giving & taking

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

12. In leisure time do you generally prefer: To be "on the go," to stay at home?
    Does your mate generally prefer: To be "on the go," to stay at home?

13. Do you ever wish you had not married?
    Frequently    Occasionally    Rarely    Never

14. If you had your life to live over, do you think you would: Marry the same person
    Marry a different person    Not marry at all

15. Do you confide in your mate: Almost never    Rarely    In most things    In everything
Neonatal Perception Inventory I

Although this is your first baby, you probably have some ideas of what most little babies are like. Please check the blank you think best describes the AVERAGE baby.

How much crying do you think the average baby does?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble do you think the average baby has in feeding?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much spitting up or vomiting do you think the average baby does?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty do you think the average baby has in sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty does the average baby have with bowel movements?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble does the average baby have in settling down to a predictable pattern of eating and sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

Neonatal Perception Inventory I

While it is not possible to know for certain what your baby will be like, you probably have some ideas of what your baby will be like. Please check the blank that you think best describes what YOUR baby will be like.

How much crying do you think your baby will do?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble do you think your baby will have in feeding?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much spitting up or vomiting do you think your baby will do?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty do you think your baby will have in sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty does the average baby have with bowel movements?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble does the average baby have in settling down to a predictable pattern of eating and sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none
Neonatal Perception Inventory II

AVERAGE BABY

Although this is your first baby, you probably have some ideas of what most little babies are like. Please check the blank you think best describes the AVERAGE baby.

How much crying do you think the average baby does?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble do you think the average baby has in feeding?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much spitting up or vomiting do you think the average baby does?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty do you think the average baby has in sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty do you think the average baby has with bowel movements?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble do you think the average baby has in settling down to a predictable pattern of eating and sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

Neonatal Perception Inventory II

YOUR BABY

You have had a chance to live with your baby for a while now. Please check the blank you think best describes YOUR baby.

How much crying has your baby done?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble has your baby had feeding?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much spitting up or vomiting has your baby done?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty has your baby had in sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much difficulty has your baby had with bowel movements?

- a great deal
- a good bit
- moderate amount
- very little
- none

How much trouble has your baby had in settling down to a predictable pattern of eating and sleeping?

- a great deal
- a good bit
- moderate amount
- very little
- none
INSTRUCTIONS:

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the person's initials and their relationship to you (see example). Do not list more than one person next to each of the letters beneath the question.

For the second part, circle how satisfied you are with the overall support you have.

If you have no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all questions as best you can. All your responses will be kept confidential.

EXAMPLE

Ex) Who do you know whom you can trust with information that could get you in trouble?

No one 1) T.N. (brother) 4) T.W. (father) 7) 2) L.M. (friend) 5) L.W. (employer) 8) 3) R.S. (friend) 6) 9)

How satisfied?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2-fairly dissatisfied 1-very dissatisfied
1. Whom can you really count on to listen to you when you need to talk?
   No one 1) 4) 7)
            2) 5) 8)
            3) 6) 9)

   How satisfied?
   6—very satisfied 5—fairly satisfied 4—a little satisfied 3—a little satisfied 2—fairly satisfied 1—very satisfied

2. Whom could you really count on to help you if a person whom you thought was a good friend insulted you and told you that he/she didn't want to see you again?
   No one 1) 4) 7)
            2) 5) 8)
            3) 6) 9)

   How satisfied?
   6—very satisfied 5—fairly satisfied 4—a little satisfied 3—a little satisfied 2—fairly satisfied 1—very satisfied

3. Whose lives do you feel that you are an important part of?
   No one 1) 4) 7)
            2) 5) 8)
            3) 6) 9)

   How satisfied?
   6—very satisfied 5—fairly satisfied 4—a little satisfied 3—a little satisfied 2—fairly satisfied 1—very satisfied

4. Whom do you feel would help you if you were married and had just separated from your spouse?
   No one 1) 4) 7)
            2) 5) 8)
            3) 6) 9)

   How satisfied?
   6—very satisfied 5—fairly satisfied 4—a little satisfied 3—a little satisfied 2—fairly satisfied 1—very satisfied

5. Whom could you really count on to help you out in a crisis situation, even though they would have to go out of their way to do so?
   No one 1) 4) 7)
            2) 5) 8)
            3) 6) 9)

   How satisfied?
   6—very satisfied 5—fairly satisfied 4—a little satisfied 3—a little satisfied 2—fairly satisfied 1—very satisfied
6. Whom can you talk with frankly, without having to watch what you say?

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7. Who helps you feel that you truly have something positive to contribute to others?

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8. Whom can you really count on to distract you from your worries when you feel under stress?

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9. Whom can you really count on to be dependable when you need help?

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10. Whom could you really count on to help you out if you had just been fired from your job or expelled from school?

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11. With whom can you totally be yourself?

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12. Whom do you feel really appreciates you as a person?

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13. Whom can you really count on to give you useful suggestions that help you to avoid making mistakes?

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14. Whom can you count on to listen openly and uncritically to your innermost feelings?

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15. Who will comfort you when you need it by holding you in their arms?

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<th>1)</th>
<th>2)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>6)</td>
<td>5)</td>
<td>4)</td>
</tr>
</tbody>
</table>

How satisfied?

<table>
<thead>
<tr>
<th>6=very</th>
<th>5=fairly</th>
<th>4=a little</th>
<th>3=a little</th>
<th>2=fairly</th>
<th>1=very</th>
</tr>
</thead>
<tbody>
<tr>
<td>satisfied</td>
<td>satisfied</td>
<td>satisfied</td>
<td>dissatisfied</td>
<td>dissatisfied</td>
<td>dissatisfied</td>
</tr>
</tbody>
</table>
16. When do you feel would help if a good friend of yours had been in a car accident and was hospitalized in serious condition?

<table>
<thead>
<tr>
<th>No one</th>
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</thead>
<tbody>
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<td>4</td>
<td>5</td>
<td>6</td>
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<td></td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
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17. When do you feel would help if a good friend of yours had been in a car accident and was hospitalized in serious condition?

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18. When do you feel would help if a good friend of yours had been in a car accident and was hospitalized in serious condition?

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19. Who accepts you totally, including both your worst and your best points?

<table>
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</tr>
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20. Who accepts you totally, including both your worst and your best points?

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</thead>
</table>
21. Whom can you really count on to listen to you when you are very angry at someone else?

No one 1) 4) 7) 2) 5) 8) 3) 6) 9)

How satisfied?

6=very satisfied 5=fairly satisfied 4=a little satisfied 3=a little satisfied 2=fairly satisfied 1=very dissatisfied dissatisfied

22. Whom can you really count on to tell you, in a thoughtful manner, when you need to improve in some way?

No one 1) 4) 7) 2) 5) 8) 3) 6) 9)

How satisfied?

6=very satisfied 5=fairly satisfied 4=a little satisfied 3=a little satisfied 2=fairly satisfied 1=very dissatisfied dissatisfied

23. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

No one 1) 4) 7) 2) 5) 8) 3) 6) 9)

How satisfied?

6=very satisfied 5=fairly satisfied 4=a little satisfied 3=a little satisfied 2=fairly satisfied 1=very dissatisfied dissatisfied

24. Whom do you feel truly loves you deeply?

No one 1) 4) 7) 2) 5) 8) 3) 6) 9)

How satisfied?

6=very satisfied 5=fairly satisfied 4=a little satisfied 3=a little satisfied 2=fairly satisfied 1=very dissatisfied dissatisfied

25. Whom can you count on to console you when you are very upset?

No one 1) 4) 7) 2) 5) 8) 3) 6) 9)

How satisfied?

6=very satisfied 5=fairly satisfied 4=a little satisfied 3=a little satisfied 2=fairly satisfied 1=very dissatisfied dissatisfied
26. Who can you really count on to support you in major decisions you make?

<table>
<thead>
<tr>
<th>No one</th>
<th>1)</th>
<th>2)</th>
<th>3)</th>
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27. Who can you really count on to help you feel better when you are very irritable, ready to get angry at almost anything?

<table>
<thead>
<tr>
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APPENDIX E
BABY INFORMATION SHEET

Date of Birth: ________________ ( ) Boy ( ) Girl
Length: ______________________ Weight: ______________________

Was this a Cesarean-section birth? Check one: ( ) yes ( ) no

APGAR scores (if known): 1 minute:________ 5 minutes:________

Length of labor -- from time of arrival at hospital until baby's birth: ________________

Did your baby leave the hospital with you? ( ) yes ( ) no

If "no," how long did baby stay in the hospital and for what medical reasons?

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

Thank you very much.
DEMOGRAPHIC INFORMATION

Name: ______________________  Age: ________

Address: __________________________________________

Phone (Work): _________ (Home): _________________________

Occupation: __________________________________________

Annual Salary: _________________________________________

Spouse's Occupation: ___________________________________

Spouse's Annual Salary: _________________________________

Number of years married: _________________________________

Was this a planned pregnancy?: yes____ no ______

When is your expected due date?: _________________________

Thank you. THIS INFORMATION IS COMPLETELY CONFIDENTIAL AND WILL NOT BE DISCLOSED TO ANYONE.
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