A Description of Selected Social Network and Social Support Characteristics of Hospitalized Antepartal Women

by

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Chapter I

Technological advances in perinatal health have resulted in the hospitalization of increasing numbers of pregnant women for the management of antepartal complications. Approximately 20% of all pregnancies in the United States are labeled high-risk, in which there is significant possibility of fetal demise, anomaly, or life-threatening illness in the newborn infant (Penticuff, 1982, p. 69). Some of these high-risk pregnancies require hospitalization of the pregnant woman for obstetrical and/or medical management in the antepartal period. These antepartal women and their families are exposed to the dual stresses of pregnancy and hospitalization (White & Ritchie, 1984). As health and pregnancy outcomes of hospitalized antepartal women are improved, increased numbers of pregnant women are hospitalized. Therefore, there exists a need to make advances also in the area of related research, particularly in regard to the psychosocial aspect of the high-risk antepartal experience.

One of the psychosocial variables associated with childbearing and other stressful experiences is social support. Social support has been associated with a shorter labor and increased mother-infant interaction

with the newborn (Sosa, Kennell, Klaus, Robertson, & Urrutia, 1980). Social support has also been associated with fewer complications of pregnancy (Norbeck & Tilden, 1983; Nuckolls, Cassel, & Kaplan, 1972).

The purpose of this study was to describe selected social network and social support characteristics of high-risk hospitalized antepartal women. This information is of value to nursing, as the nurse can help hospitalized antepartal women with the assessment and development of a social support network. This could assist in facilitation of coping with hospitalization, ameliorate some of the stress of hospitalization, and possibly favorably influence the actual outcomes of these pregnancies.

Statement of the Problem

Technological progress has been made in the areas of high-risk neonatal care and antepartal management. A major component of the recent advances in perinatology is the use of antenatal hospitalization to improve perinatal outcomes. Rather than transporting the premature or ill infant from other hospitals after delivery, the new approach favors transporting high-risk mothers prior to delivery, to allow sophisticated perinatal technology to be applied

in the antepartal, intrapartal, and postpartal stages (Merkatz, 1978, p. 204). This advance results first in an acute, and then chronic crisis for the high-risk family.

The separation of the pregnant woman from her family, friends, and activities has numerous repercussions and results in a large amount of stress on the woman (Curry, 1985; Rosen, 1975; Weil, 1981; White & Ritchie, 1984). Having an adequate social support network can possibly redistribute or reduce some of the stress of the hospitalization. However, the need for support may be increased beyond the usual capacity of the woman's network.

The association between social support and favorable outcomes of pregnancy may exist also in the high-risk antepartal hospitalization situation. An initial step in examining this relationship is the description of the characteristics of the social support network of hospitalized antepartal women, which is the purpose of this study.

Review of Related Literature

The review of the literature includes a discussion of definitions of social support, and examines social support as it relates to physical health, mental health, and pregnancy. A discussion of antepartal

hospitalization concludes the section.

Definitions of Social Support

Social support has been defined by many theorists. The definitions all address the same concept, but when translating the concept into measureable variables for the purpose of research, the differences in interpretation become apparent.

Caplan (1974) divided both long and short-term support into three elements: assistance with physical tasks, psychological support, and the rendering of concrete aid. Cobb (1976) believed that the concept of social support could be subdivided into three categories of information: that which leads the subject to believe that he is loved, esteemed, or belongs to a network of mutual obligation. The categories identified by Caplan are distinctly different than those identified by Cobb, with the only similarity being the area of assistance or obligation.

Kahn and Antonucci (1980) defined social support categorically. Their definition included all aspects of Cobb's and Caplan's definitions. Kahn and Antonucci proposed that social support be defined as interpersonal transactions that include one or more of the following: affect, affirmation, and aid. Affective transactions are expressions of liking,

admiration, respect, or love. Transactions of affirmation are expressions of agreement or acknowledgment of the appropriateness or rightness of some act or statement of another person. Aid includes those transactions in which direct aid or assistance is given, including things, money, information, or time.

House (1981) defined social support in terms of four broad classes or types of supportive behavior or acts. He divided social support into emotional, informational, instrumental, and appraisal support. House's definition included all types of support identified by Cobb, Caplan, amd Kahn and Antonucci. Kahn and Antonucci's category of aid combined both physical and mental types of aid. House left these categories as distinct entities and named them instrumental and informational support.

Bruhn and Philips (1984) recently examined definitions and concepts of social support to determine if there were common elements that could be used to provide a theoretical structure for future research. Their conclusion was that several points need to be emphasized in formulating and refining future studies of social support. They identified aspects of social support which should be included in

all definitions for the purpose of research. These aspects included traits, perceptions, dimensions, effects, and the mechanism of action of social support.

Because of the variety of definitions and conceptualizations used by prior investigators, it is difficult to compare and contrast research on the association of social support with other variables. A primary need for research in this area is for a standardization of theoretical structure and measurement techniques, so a systematic knowledge base can be developed.

Social Support and Physical Health

Social support has been associated with favorable health outcomes in a variety of clinical settings. However, because social support is difficult to isolate as a single variable, most researchers examine a number of variables in conjunction with social support when studying factors that contribute to client well-being.

Asher (1984) studied the relationship between social support networks, the degree of contact an individual has with the network, and illness. The research was retrospective and utilized data collected on 4890 subjects by the Office of Research and

Statistics of the Social Security Administration in the Retirement History Survey. The individuals' health in 1971 was estimated as a function of the events reported in the 1969 survey. This method was based on the assumption that there is a lag time between an event and its effect on health. Social support networks were found to have virtually no impact on explaining health outcomes for illness over which the individual had little control. When a broader range of illness was considered, social support networks were correlated with better health. A limitation of the study is that the sample consisted entirely of white males which reduces potential generalizability and may have introduced a systematic bias.

Berkman and Syme (1979) retrospectively examined the relationship between social support and community ties and mortality using the 1965 Human Population Laboratory Survey of a random sample of 6928 adults living in Alameda, California. Four sources of social contact were considered: marriage, contacts with close friends and relatives, church membership, and informal and formal group associations. Mortality was assessed using a nine-year follow-up of death certificates. With few exceptions, respondents with

each type of social tie had lower mortality rates than respondents lacking such connections.

Both of the above studies support the contention that social support exists in a positive association with physical health. However, as Asher (1984) points out, the illness must be one over which the individual has some control. Thus, a potential problem with this study is that it may be the confounding variable of control that was the important factor associated with better outcomes rather than the social support. Berkman and Syme (1979) also support the positive association between physical health and social support, but since the results are in terms of mortality, an assumption is made that mortality is not a natural termination of a healthy life.

Social Support and Mental Health

In a study by Lin, Ensel, Simeone, and Kuo (1979), social support was found to be negatively related to psychiatric symptoms, as well as to be a predictor of these symptoms. The study was retrospective and utilized a sample of 170 Chinese-Americans. Social support was measured by a nine-item scale that focused on non-kin support. The scale was devised by the researchers and measured the respondents' interactions and involvement with friends, neighbors, people

nearby, and the subcultural community, as well as social adjustment components. The item-total correlations ranged from .36 to .74, with all correlations significant at the $p \leq .001$ level. The alpha level was .52.

Illness symptomatology was measured using a scale of psychiatric symptoms that asked the respondent to report symptoms which had occured within the last six months. Stressful life events were measured by the Holmes and Rahe Social Readjustment Rating Scale. Social support was found to be equally, if not more, important than stressful life events in exercising an influence on illness symptoms. Social support was negatively related to psychiatric symptoms. Some of the limitations of this study are related to generalizability. The population, consisting of Chinese-Americans represents only a segment of the general population. Only 24% of the sample were American-born, which may further reduce the generalizability of the findings. The findings can only be applied to psychiatric illnesses. No application can be made to mental health. The study is also limited by the social support scale used in the study. The alpha coefficient is low, and consequently the scale needs further refinement.

Syrotuik and D'Arcy (1984) examined the relationship between social support and mental health in terms of direct, protective, and buffering effects. A sample of 455 married males who were employed on a full-time basis were evaluated in terms of spousal/community support and job strain. Social support was defined in terms of satisfaction of social needs and measured using a nine-item scale constructed by the researchers. Item-scale correlations ranged from .64 to .81 with an alpha of .84.

Job strains were defined in terms of pressures and deprivation. Psychological distress was measured using the 30-item version of the General Health Questionnaire with Likert-like scoring. The results indicated that social support had generally positive implications for mental health in terms of direct, protective, and buffering effects. The results are limited in terms of generalizability in that the sample consisted of married employed males, and therefore cannot be applied to women, single employed males, or the unemployed.

While these two studies support the proposition that social support is positively associated with mental health, it is important to recognize differences between the studies. Lin et al. (1979)

viewed mental health as the absence of psychiatric symptoms whereas Syrotuik and D'Arcy (1984) viewed mental health to be the presence of mental health as assessed by a questionnaire.

Social Support, Pregnancy and Birth

The relationships between psychosocial assets, social stress and the prognosis of pregnancy were examined by Nuckolls, Cassel and Kaplan (1972). Psychosocial assets were defined as any psychological or social factors which contribute to a woman's ability to adapt to her first pregnancy. The assets were measured by The Adaptive Potential for Pregnancy Scale (TAPPS) questionnaire. The score is derived from responses to questions designed to measure the subject's perceptions concerning herself, her relationship with her husband, her family, and the community.

Life crisis was measured by the Life Change Score which provides for a summed score of the life changes which occurred in the last two years before pregnancy, and a second score for more recent changes which occured during pregnancy. The study was conducted at a large military hospital and the subjects were white primigravidas married to enlisted men. The sample size was 340, and all women were registered for

prenatal care prior to their 24th week of pregnancy. It was found that if the life change score was high both before and during pregnancy, women with high TAPPS scores had only one third the complication rate of women with low TAPPS scores. The generalizability of these findings is limited to the population studied. Also, since the TAPPS questionnaire measured both intrapersonal and social assets, an inference cannot be made specifically in regard to social support.

Norbeck and Tilden (1983) studied the relationships between life stress, social support, emotional disequilibrium and complications of pregnancy. The sample was composed of 117 women attending a university medical center prenatal clinic. The women were from various racial, marital, and socioeconomic groups, were medically normal, and were recruited at 12 to 20 weeks gestation.

Social support was measured using Part Two of the Lazarus and Cohen Social Support Questionnaire which measures informational and emotional support from spouse or partner, friends, work or school associates, relatives and neighbors. Test-retest reliability for a nine-month interval was .58 for informational support and .65 for emotional support. Since the

Lazarus and Cohen instrument did not measure tangible support, a three-item measure of tangible support was developed for the study as an additional approach to measuring social support. These items related to concrete aid and practical help and were answered on a five-point scale. The Sarason Life Experiences Survey was used to measure stress, and the Spielberger State-Trait Anxiety Inventory, Lubin Depression Adjective Checklist and the Rosenberg Self-Esteem Scale were utilized to measure emotional disequilibrium.

The investigators of this study found that high life-stress and low social support were significantly related to high emotional disequilibrium. High life-stress from the prior year was significantly related to overall complications. The interaction of life-stress during pregnancy and tangible support was a significant predictor of each type of complication. Emotional support was significantly related to emotional disequilibrium, but tangible support was not.

The generalizability of the findings of this study is limited to women who present themselves early for prenatal care. This is not a typical practice for low-income women. Also, the findings cannot be

applied to women who are high-risk due to underlying medical health problems.

Psychological status in pregnancy has also been examined in relationship to social support. Tilden (1983) studied a convenience sample of 141 medically normal adult women in the mid-trimester of pregnancy during a routine prenatal visit. The women were fluent in English, and private patients were excluded from the sample.

The Sarason Life Experiences Survey was used to measure life events subjects experienced in the preceeding 12 months. The Spielberger State-Trait Anxiety Inventory, Lubin Depression Adjective Checklist, and Rosenberg Self-Esteem Scale were also administered to the sample to assess psychological status. The Social Support Questionnaire developed by Cohen and Lazarus and a tangible support subscale developed by Norbeck were used to assess social support. Test-retest reliability on the Cohen and Lazarus instrument was .56 to .68 over a nine-month interval. The intercorrelation of emotional and informational support was .81. The tangible support subscale was constructed by Norbeck and was tested only for face validity.

The results indicated that the positive effect of

social suppport on emotional disequilibrium was significant, however, the magnitude of the correlation was small. Findings of the study are limited as the instrument used to measure the tangible aspect of social support was in the early stage of refinement. The results are only generalizable to low-risk women in terms of their medical history, and to the population of women who present for early prenatal care.

Cronenwett (1985) studied social support in relationship to psychological outcomes of pregnancy. A nonprobability sample of 50 primigravid couples was obtained through private practices and a Lamaze class. The sample was primarily white and upper middle-class. Social support was measured using the Social Network Inventory (SNI) developed by the investigator. The instrument measures network structure and perceived social support. Intercorrelations among the four social support variables ranged from .20 to .63. The couples assessed the outcome of their pregnancy using the Lederman Postpartum Self-Evaluation Questionnaire. The scale measures quality of relationship with spouse, perception of spouse participation in child care, gratification from labor and delivery

experience, satisfaction with life situation and circumstance, confidence in ability to cope with tasks of parenting, satisfaction with parenthood and infant care, and support for parenting roles from parents, friends, and relatives.

The study found that emotional and instrumental support were important variables in explaining six-week post-partum outcomes, whereas informational and appraisal support were not significant variables. The results are limited by the homogeneity of the sample in terms of class and race, and by further need for testing of the SNI.

Sosa et al. (1980) studied the effects of a supportive lay person on the length of labor and on mother-infant interaction after delivery in healthy Guatemalan primigravid women. There were 20 subjects in both the control group and the experimental group. It was necessary to admit 103 subjects to the control group and 33 to the experimental group to obtain the final sample size of 20 in each group with uncomplicated labors and normal vaginal deliveries. The lay person provided physical contact, conversation, and the presence of a friendly companion. The subjects had not met the lay person prior to the study.

Interaction between the mother and infant was assessed by direct observation. The study found that labor was significantly shortened and that some aspects of maternal behavior were enhanced in the experimental group. These behaviors consisted of length of time awake after delivery, stroking, talking, and smiling at the infant.

The findings of this study are limited by the provision of a support person unknown to the laboring women. In reality, most support persons in labor have an intimate or close relationship with the pregnant women. It is not known if these results would apply to the more realistic situation, but it would be expected that the effect of a known support person would be magnified as compared to that of an unknown person.

These five studies all support the contention that social support is positively associated with favorable outcomes of pregnancy and birth. Both Nuckolls et al. (1972) and Norbeck and Tilden (1983) found that social support had a significant negative correlation with undesireable variables (emotional disequilibrium and complications of pregnancy) when in the presence of high life change or life stress. This finding is of particular importance to hospitalized antepartal women

as the women are under a large amount of strain. Their environment, family life, and activities are all disrupted. These changes could result in emotional disequilibrium, and Tilden's (1983) finding that social support had a positive effect on emotional disequilibrium could be of importance to these women.

Both Cronenwett (1985) and Sosa et al. (1980) reported a positive association between support and pregnancy outcomes. Sosa et al. found that social support was positively associated with immediate pregnancy outcomes such as labor and initial maternal-infant interaction. Cronenwett studied the six-week post-partum outcomes. The above studies represent the importance of social support throughout the pregnancy, childbearing, and early child-rearing.

Antepartal Hospitalization

Despite the fact that antepartal hospitalization has become increasingly common over the past decade, there is little literature regarding the experience of antepartal hospitalization. Only three systematic studies of antepartal hospitalization have been reported. The results of these studies, a case study report, and the theoretical literature, are discussed in chronological order.

Rosen (1975) examined the concerns of one

obstetric patient experiencing long-term hospitalization. Data were gathered by means of unstructured interviews with the patient, by observations and conversations with the staff, and from nurses' notes. The case study was helpful in identifying the anger, hostility, and irritation the patient experienced with the hospital routine.

Rosen identified broad areas of patient concern. Merkatz (1978) narrowed the areas of concern into categories. Merkatz studied 22 pregnant women to determine whether antenatal hospitalization might be a stressful event that could impede successful negotiation of the developmental tasks of pregnancy and affect family relationships. The study population was heterogenous and included 15 multiparous women, 12 of whom had from one to six dependent children at home. Eight of the women had undergone prior pregnancy loss or previous delivery of a sick or premature infant.

Expression of concern by the mother about the baby ranked first among the list of behaviors observed in the hospital and was seen in 20 of the 22 patients. Concern about her own health was observed for 19 of the women, and ranked second. Expression of fear about the outcome for the baby, concern about the

children at home, and sleeping during the day were also commonly observed. The frustration with hospitalization identified by Rosen (1975) was not reported in these study results. The seven highest overall scores belonged to women with children at home. The results of the study indicated that women with children are particualrly susceptible to the adverse circumstances of the hospitalization.

Weil (1981) wrote both from her personal experience perspective of her own high-risk pregnancies and from her experience as a high-risk obstetrical nurse. She identified areas of stress for the high-risk patient which included sexuality, finances, marital relationship, and previous loss. These areas of stress were all newly identified by Weil and were not discussed by Rosen and Merkatz.

In a theoretical paper, Penticuff (1982) discussed the psychological implications of high-risk pregnancy. She identified the impact of high-risk pregnancy on family relationships, and discussed the responses of the family to the diagnosis of high-risk pregnancy. Penticuff also discussed neoparental maladaption as a side-effect of high-risk pregnancy.

White and Ritchie (1984) studied 61 antepartum patients hospitalized in a university teaching

hospital for management of their high-risk pregnancies. The purpose of this study was to identify the major stressors experienced by the hospitalized antepartal women. The criteria for inclusion in the study included stated intention to keep the baby, gestational age between 20 and 38 weeks, no previous hospitalization for the present pregnancy, and an unpredictable length of hospital stay. The sample represented a wide range of age, diagnoses, and number of previous pregnancies.

The Antepartum Hospital Stressors Inventory developed by White was used for data collection. The stressor catagories related to separation, environment, health status, communication, self-image, emotions, and family status. Subjects were able to react to each potential stressor by assigning a degree of stress on a Likert-like scale. Content validity was demonstrated through positive correlations between the instrument results and the interview responses. Reliability in terms of internal consistancy was demonstrated by a alpha of .91 on a modified split-half.

The study found that the hospitalized women reported they experienced the most stress in relation to separation from home and family, disturbing

emotions, changes in family circumstances, health concerns, and changing self-image, in that order. This study is limited by the lack of testing of the instrument developed for the study, and by the limited options for expressing maternal concerns.

Most of the areas of stress identified by White and Ritchie are similar to those identified previously, though the concepts are difficult to compare due to different labels and definitions. Changing self-image was an area of stress that was introduced by White and Ritchie and had not been previously identified.

Curry (1985) studied a convenience sample of hospitalized pregnant women recruited from three obstetrical high-risk centers in Oregon. The purpose of this study was to describe the experience of antepartum hospitalization as perceived by hospitalized pregnant women. Data were collected during interviews timed soon after admission and at the end of the first and second weeks of hospitalization. The sample size for the first interview was 124; 84 women completed the second interview, and 40 women the third interview. Most of the women were white, married, low-income and had young children at home.

Data were collected utilizing a number of established instruments and three interview schedules designed for the study. Previously established reliability and validity for the instruments are included in the study report and are discussed in the following paragraphs. Social stress was measured by the Sarason Life Experiences Survey (LES). The womens' relationship with their mothers was measured by their score on a subscale of the Lederman Prenatal Questionnaire (LPQ). Test-retest correlations on the LES ranged from .19 to .53 for the positive change score and from .56 to .88 for the negative change score. The coefficients were higher for the total change score with a range of .63 to .64. The LPQ subscale used in the study had a Cronbach's alpha of .92.

Social support was measured with the Norbeck Social Support Questionnaire (NSSQ). Test-retest reliabilities of the NSSQ ranged from .85 to .92. Interitem correlations ranged from .72 to .98. Self concept was measured by the Tennesse Self Concept Scale. Test-retest reliability for that scale was .92.

Two subscales of the LPQ were used to measure maternal behavior. The Acceptance of Pregnancy

subscale had a Cronbach's alpha of .90. The Identification with Motherhood scale had a Cronbach's alpha of .79. The two subscales were highly correlated in the normative study (r=.54). The Cranley Fetal Attachment Scale was also used to measure maternal behavior. The scale had a Cronbach's alpha of .84. The subscale alphas ranged from .42 to .75.

The Dyadic Adjustment Scale (DAS) was used to evaluate certain aspects of a partner relationship. The total score Cronbach's alpha was .96. The risk scores were computed using indices developed by the Oregon Health Sciences University. Data were also collected using the three interview schedules developed for this study

The study sample women were poorer and more likely to be unmarried than childbearing women as a whole in the state. They were also more likely to have mothers who had reproductive difficulties. The factors that were most likely to raise their obstetrical risk scores were older age, low education, previous pregnancy loss, low social support, high amount of negative life stress, low self-concept, and not living with a partner. Social support appeared to serve as an antecedent variable in relationship to risk score.

Women with fewer members in their social support network had higher initial and hospital risk scores.

A good relationship with their own mother and high self-concept were positively related to maternal behavior. A high level of negative life stress was negatively related to maternal behavior. Although maternal behavior became more positive over time, most women expressed feeling ambivalent on occasion. Initial reactions to hospitalization were primarily shock and fear. These later changed to feelings of resignation and boredom, and most women were distressed by mood swings and feelings of lack of control. They counted on their partners for support and yet were very concerned about them. Women with children were the most stressed and their primary concern was for the children at home.

The study was limited by the sample attrition and the smaller sample size for the later interviews. Also, all data were collected from the pregnant woman's perspective only; no data were collected from other family members.

At the second and third interview women were asked how helpful certain individuals were in coping with the hospitalization. The sources of support were ranked in order of most helpful to least helpful as

follows: partner, medical staff, nurses, family, keeping busy, friends, religious beliefs, and roommate.

The literature regarding the experience of antepartal hospitalization consistently describes the hospitalization as a highly stressful experience with many areas of concern identified by the hospitalized women (Merkatz, 1978; Penticuff, 1982; Rosen, 1975; Weil 1981; and White & Ritchie, 1984). Curry (1985) described the experience of antepartal hospitalization through a much broader framework. Significant to this study is the finding that social support is negatively related to risk scores. This could have implications for the whole time span of a pregnancy, from preconception counseling to delivery. A detailed analysis of social support is the focus of this study.

Summary of the Review of Literature

In this literature review, various definitions of social support were compared and contrasted. The definitions all attempt to delineate the different categories or types of support. While there are many common elements in these definitions, there is not a common universal definition. This makes it difficult to compare and contrast social support research.

Social support has been shown to impact physical

health outcomes over which the individual has some control, and lower mortality rates have been associated with social ties. Social support has also been shown to influence mental health. Psychiatric symptoms were shown to be negatively related to social support. Social support has been shown to have a positive effect on mental health in terms of direct, protective, and buffering effects.

The more specific health state of pregnancy was also discussed in the review of literature. It was shown that women with greater psychosocial assets had fewer complications of pregnancy in the presence of high life change. High life stress and low social support were significantly related to high emotional disequilibrium during pregnancy. High life stress both before and during pregnancy in interaction with low tangible support were predictors of complications. Emotional and instrumental support were important variables in explaining six-week post-partum outcomes. The only study that examined social support in hospitalized antepartal women found that low social support appeared to be an antecedent variable for obstetrical risk and an important factor in coping with the hospitalization.

Conceptual Framework

The conceptual framework for this study is based on Kahn and Antonucci's (1980) definition and conceptualization of social support. Social support is viewed through the perspective of the life-course and is considered a dynamic entity. Support comes from a network of family, friends, and others. The networks are seen in the perspective of the life-course and are called convoys. Social support is defined as interpersonal transactions that include one or more of the following key elements: affect, affirmation and aid. These three elements are categories of functional support. Affective transactions are expressions of liking, admiration, respect, or love. Transactions of affirmation are expressions of agreement or acknowledgment of the appropriateness or rightness of some act or statement of another person. Aid transactions are those in which direct assistance is given, including things, money, information, or time.

Antepartal hospitalization occurs when there is a threat to maternal health or when the outcome of pregnancy is threatened. The literature suggests that social support is associated with more favorable pregnancy outcomes. The purpose of this study is to

describe the social support network of hospitalized antepartal women.

Research Questions

1. How many network members are in the social support network of hospitalized antepartal women?

2. How many network members are in each of the nine source categories: spouse or partner; family or relative; friend; work or school associate; neighbor; health care provider; counselor or therapist; minister, priest, or rabbi; and other?

3. What is the amount of functional social support provided by the different source categories in terms of affect, affirmation, and aid?

4. Are there differences between the source categories in terms of the amount of each type of functional support provided?

Chapter II

Methods

This chapter describes the research methods. The design is described first, followed by a description of the sample, setting, protection of human subjects, instrument, data collection and analysis.

Design

This study used a descriptive design and secondary analysis of existing data. This design was chosen because there was a need for a systematic in-depth description of the phenomena of social support in the population of high-risk hospitalized antepartal women. These data were initially collected during the study: "Antenatal Hospitalization: Maternal Behavior and the Family" conducted by Curry (1985). Multiple instruments were administered to the sample during the course of Curry's study. One of these instruments was the Norbeck Social Support Questionnaire (NSSQ). These data collected with the NSSQ were subjected to further analysis in this study.

One hundred and twenty-four pregnant women who read and spoke English and who were hospitalized as a result of a complication of pregnancy and/or because of a pre-existing medical disease exacerbated by the pregnancy comprised the sample for the Curry study.

Subjects were recruited from one of three regional medical centers in Portland, Oregon: Oregon Health Sciences University Hospital, Emanuel Hospital, and Bess Kaiser Medical Center. These centers were chosen because of their similarities. All three hospitals are regional perinatal care centers, contain level three neonatal intensive care units, are teaching hospitals, and have large populations of hospitalized antepartal women.

Women were not considered for induction into the study if it appeared likely that they would deliver or be discharged within five days or if after reviewing the chart with a member of the medical staff it was determined that participating in the study would be potentially harmful for the woman and/or her family. The majority of the women were married, white, and low-income.

Protection of Human Subjects

The project was reviewed and approved by the Human Subjects Review Committees and the nursing and medical staff of each hospital prior to sample recruitment. A consent form was used to obtain informed consent from the participants.

Instrument

The data were collected using the Norbeck Social

Support Questionnaire (NSSQ) (see Appendix A) (Norbeck, Lindsey, & Carrieri, 1981, 1983). The NSSQ was developed from the definition of social support and the concept of a convoy described by Kahn and Antonucci (1980). According to this definition, social support consists of three components: affect, affirmation and aid, and it occurs through interpersonal transactions within the social network or convoy. The convoy describes a set of relationships that develop and change over time and form the more or less stable group of persons on whom the individual relies for support (Norbeck, 1984).

The structure of the NSSQ is linked to Kahn and Antonucci's definition. The subscales of affect, affirmation and aid relate directly to the definition. Norbeck made only one departure from the otherwise consistant theoretical base: this instrument measures perceived support available to the individual rather than reciprocal support inherent in the definition. This was a practical decision, based on the intended clinical use of the NSSQ. Reciprocal support would be an extremely difficult, if not impossible, construct to measure. The individual's perception of support, accurate or inaccurate, rather than actual existing support, may be the critical

factor for clinical purposes.

The dimensions of a convoy, the vehicle through which social support is provided, are measured through three network properties: number in the network, duration of relationships, and frequency of contact with network members. Because the individual network can change over time, questions regarding recent losses of network members are included in the NSSQ. The functional components measured are affect, affirmation and aid. Each component has two questions devoted to it in the NSSQ.

The format of the questionnaire is one stable page on which the subject lists members of the convoy, and half pages which contain the questions. As the respondant flips the half pages, the list of convoy members remains aligned for the purpose of reference for answering the questions.

The NSSQ has nine items. The respondent begins answering the questionnaire by listing up to 20 providers of support and their relationship to the respondant. This is the subject's convoy. The first six items are the two questions relating to each of the three functional categories of support. The subject is asked to respond to each item on a Likert-like scale ranging from 1 to 5, 1 being not at

all and 5 a great deal.

The two questions regarding affective support (which includes expressions of liking, admiration, respect, or love) are: "How much does this person make you feel liked or loved?" and "how much does this person make you feel respected or admired?" Affirmation support (which includes expressions of agreement or acknowledgment) is assessed by asking the subject: "How much can you confide in this person?" and "how much does this person agree with or support your actions or thoughts?". Support in the form of aid (which includes tangible and intangible assistance) is assessed by asking the respondant: " If you needed to borrow $10, a ride to the doctor, or some other immediate help, how much could this person usually help?" and if you were confined to bed for several weeks, how much could this person help you?"

The subject is then asked for information regarding the duration of each relationship and the frequency of contact with each network member. The last question elicits information regarding recent losses in the convoy, and the amount of support those lost persons provided. For the purposes of this research, only the functional aspects of support (affect, affirmation, and aid), the number listed in

the network, and the source categories were analyzed.

Psychometric testing has been reported using samples from three different populations prior to the Curry study. Norbeck, Lindsey and Carrieri (1981) first tested 75 graduate nursing students and 60 senior nursing students. All but one respondent was female. With these groups the NSSQ was found to have a test-retest reliability of .85 to .92 over a period of one week.

Internal consistancy was tested through intercorrelations among all items. The correlation between the two affect items was .97; between the two affirmation items, .96; and between the two aid items, .89. The affect and affirmation items were also highly related (range: .95 to .98), suggesting that these two functions might not be distinct. In contrast, the aid items had lower correlations when correlated with the affect or affirmation items (range: .72 to .78).

The NSSQ was relatively free from the influence of a social desirability response bias as measured by the Marlowe-Crowne Social Desirability Scale. The values ranged from .31 to .56. Concurrent validity was established with the Social Support Questionnaire developed by Cohen and Lazarus. An attempt was made

to establish construct validity with the Profile of Mood States, but it was not successful, possibly due to the sample size or the non-clinical nature of the subjects.

Norbeck, Lindsey and Carrieri (1983) conducted further normative data collection and psychometric testing on a third population consisting of a sample of 136 male and female employed adults. The subjects were working in a large university medical center. The stability of the instrument over a seven-month period was high, but lower than for the one-week interval in the previous study, as would be expected. The instrument thus appeared to be sensitive to change in the network structure.

Unlike the previous nursing student sample, construct validity was demonstrated through significant correlations between the NSSQ and two similar interpersonal constructs, need for inclusion and need for affection as measured by the Fundamental Interpersonal Relations Orientation. Concurrent validity was established between the NSSQ and the Personal Resource Questionnaire. Two NSSQ subscales, when interacting with life stress, had predictive validity for negative mood states as measured by The Profile of Mood States.

Data Collection

The NSSQ does not require the researcher to be in attendance for administration. The questionnaire has brief instructions for completion printed at the beginning. In the Curry study, these instructions were reviewed with each respondent prior to leaving the questionnaire for them to complete. The questionnaire was collected within two days.

Data Analysis

For the purpose of this study, only the portion of the data that were pertinent to the research questions were used. The network members of each respondent were classified according to nine source categories. The source categories are: spouse or partner; family or relatives; friends; work or school associates; neighbors; health care providers; counselor or therapist; minister, priest, or rabbi; and other. The functional support subscales were analyzed. The individual items on the NSSQ are scored by the respondent on a Likert-like scale ranging from 1 to 5. The subscale scores are calculated by adding together the scores on the two questions pertaining to each functional support subscale, affect, affirmation, and aid.

Two problems have been identified with scoring the

NSSQ (Norbeck, 1984). Using multiple regression analysis, it was found that for a particular study sample, information was lost by combining the subscales scores into one score. Therefore, the subscale scores should not be combined into a total functional score if it appears that the social support effect is primarily from a single subscale. This may only be true for the Norbeck study sample, but should be considered as a potential liability for any study sample. In the present study, the functional subscale scores were not combined.

The second problem with scoring the NSSQ revolves around the number of persons in the network. For the purposes of comparison, one can divide scores by the number of persons in the network. The problem is that the easily comparable results are at the expense of some information about network size. In the present study, each source was retained as a distinct entity, consequently this factor was not an issue.

Analysis of these data utilized descriptive methods. The sample demographics were described and frequency distributions of the source categories and the functional support subscale scores were constructed. The source categories were compared for differences among the groups. Scale reliabilities

were computed and compared to reliabilities previously reported in the literature and the Curry study.

No attempt was made to place a value on the amount of support, as to what is "enough" support. The scores can be compared to other existing phenomena or outcomes. Statements can be made only about higher or lower scores for a sample.

CHAPTER III

RESULTS

The findings of the study are presented in this chapter. The instrument reliabilities are described first. The study sample is then described, followed by a description of the findings related to each of the research questions.

Reliability of the Instrument

The reliability of the Norbeck Social Support Questionnaire was computed for this study sample. The subscales of affect, affirmation, and aid were analyzed using interitem correlations. The two items on the affect scale had a correlation of .71, affirmation items .66, and aid items .61 as shown in Table 1. The Cronbach's alpha coefficients for the two item subscales were .83 for affect, .79 for affirmation, and .75 for aid as shown in Table 2.

In addition, all six items of the three subscales were significantly ($p \leq .05$) correlated with each other. Correlations ranged from .35 to.71. Three of the four highest correlations occurred between the two items from the same subscale; affect, affirmation, and aid, in rank order of highest to lowest correlation. The lowest correlations were seen between aid items and the items of other subscales. The range of

Table 1

Interitem Correlation Coefficients for Subscale Items in Grierson Study (1986)

Item	Afct 1	Afct 2	Afrm 1	Afrm 2	Aid 1	Aid 2
Afct 1						
Afct 2	.71					
Afrm 1	.54	.59				
Afrm 2	.54	.62	.66			
Aid 1	.40	.35	.41	.43		
Aid 2	.41	.35	.43	.38	.61	

Note. Afct 1 = Affect question 1; Afct 2 = Affect question 2; Afrm 1 = Affirmation question 1; Afrm 2 = Affirmation question 2; Aid 1 = Aid question 1; Aid 2 = Aid question 2.

Table 2

Cronbach's Alpha for Subscales and Scale

	Study	
Scale	Curry	Grierson
Subscales		
Affect	.99	.83
Affirmation	.98	.80
Aid	.96	.76
Total functional	.99	.84

correlations between the aid and affect items was .36 to .41 and for the aid and affirmation items the range was .38 to .43. The highest interitem correlations between items from different subscales were for the affect and affirmation items, ranging from .53 to .62. The Cronbach's alpha coefficient for the six-item functional scale, which combined all three subscales, was .84

Description of the Study Sample

The original sample size for the Curry study was 124 women. Of those, 102 women completed the Norbeck Social Support Questionnaire. The initial interview, in which the demographic data were collected, took place a mean of 106.27 hours after admission. The range was from 4 hours to 37 days, and the distribution was multi-modal. The majority of the women (64.1%) had not been hospitalized previously during the study pregnancy. Of those who had been hospitalized previously, most (46.4%) had only been hospitalized for one day with the remainder being hospitalized from 2 to 11 days. Women from Emanuel Hospital represented the majority of the sample (52.9%) with 35.3% from Oregon Health Sciences University Hospital and 11.8% from Bess Kaiser Medical Center.

Demographic Characteristics

The demographic characteristics are shown in Table 3. The range of gestational age at recruitment was 20 to 38 weeks, with a mean gestational age of 30.02 weeks (s.d. 3.659). The data were tri-modal with a peak at 28, 29 and 32 weeks. There was a cluster of 65 persons in the 28 to 33 week range, representing 63.73% of the study sample. The average age of the

women was 25.8 years. Ages ranged from 16 to 39 years. The mean years of education was 12.53. Of the 83 women who reported race, the only non-Caucasions in the sample were 2 Hispanic, 2 Black and 2 Asian women, representing 7.2% of the sample. Most of the women stated a religious preference. The sample consisted of 32.7% Protestants, 23.8% Catholics, 18.8% Christians and 9.9% of women coded as other. A religious preference was not stated by 14.9% of the women.

Table 3

Selected Demographic Characteristics

Demographic variable	Mean	s.d.	Mode	Range
Gestational Age	30.02	3.66	28	20-38
Age	25.80	5.49	26	16-39
Education	12.53	2.41	12	6-21
Number of Children	1.14	1.10	1	0-5

The modal annual family income of the sample women was between $20,001-30,000 per year (26.3%), as shown

in Table 4. The annual income of the sample was distributed well over all of the income categories. A large percentage (29.3%) of the sample had an income of $10,000 or less, which is at or below the national poverty level for a family of four. Nearly half (49%) of the sample were full-time homemakers. Of the remainder, 27.5% were working full-time and 17.6% were working part-time prior to the hospitalization.

Table 4

Level of Family Income

Income Range	n	Adjusted Frequency Percent	Cummulative Frequency Percent
0-6,000	19	19.2	19.2
6,001-10,000	10	10.1	29.3
10,001-15,000	19	19.2	48.5
15,001-20,000	12	12.1	60.6
20,001-30,000	26	26.3	86.9
30,001-40,000	10	10.1	97.0
Greater than 40,000	3	3.0	100.0

Most of the women in the sample were married (77.5%), 13.7% were single, 4.9% were divorced and 3.9% were separated as shown in Table 5. Although 79 of the women were married, only 77 (75.5%) reported living with a partner, as shown in Table 6. Most of the women had children, with a mode of one child as shown in Table 7. A percentage of the sample had no children (30.4%), 41.2% had one child, and 19.6% had two children. The range was 0 to 5 children. Many of the women had small children as shown in Figure 1.

Table 5

Marital Status of Sample

Status	n	Percent
Married	79	77.5
Single	14	13.7
Divorced	5	4.9
Separated	4	3.9

Table 6

Living Situation of Sample

Living situation	n	Percent
Living w/partner	77	75.5
Not living w/partner	14	13.7
Missing data	11	10.8

Table 7

Number of Children

Number of Children	n	Percent
0	31	30.4
1	42	41.2
2	20	19.6
3	3	2.9
4	5	4.9
5	1	1.0

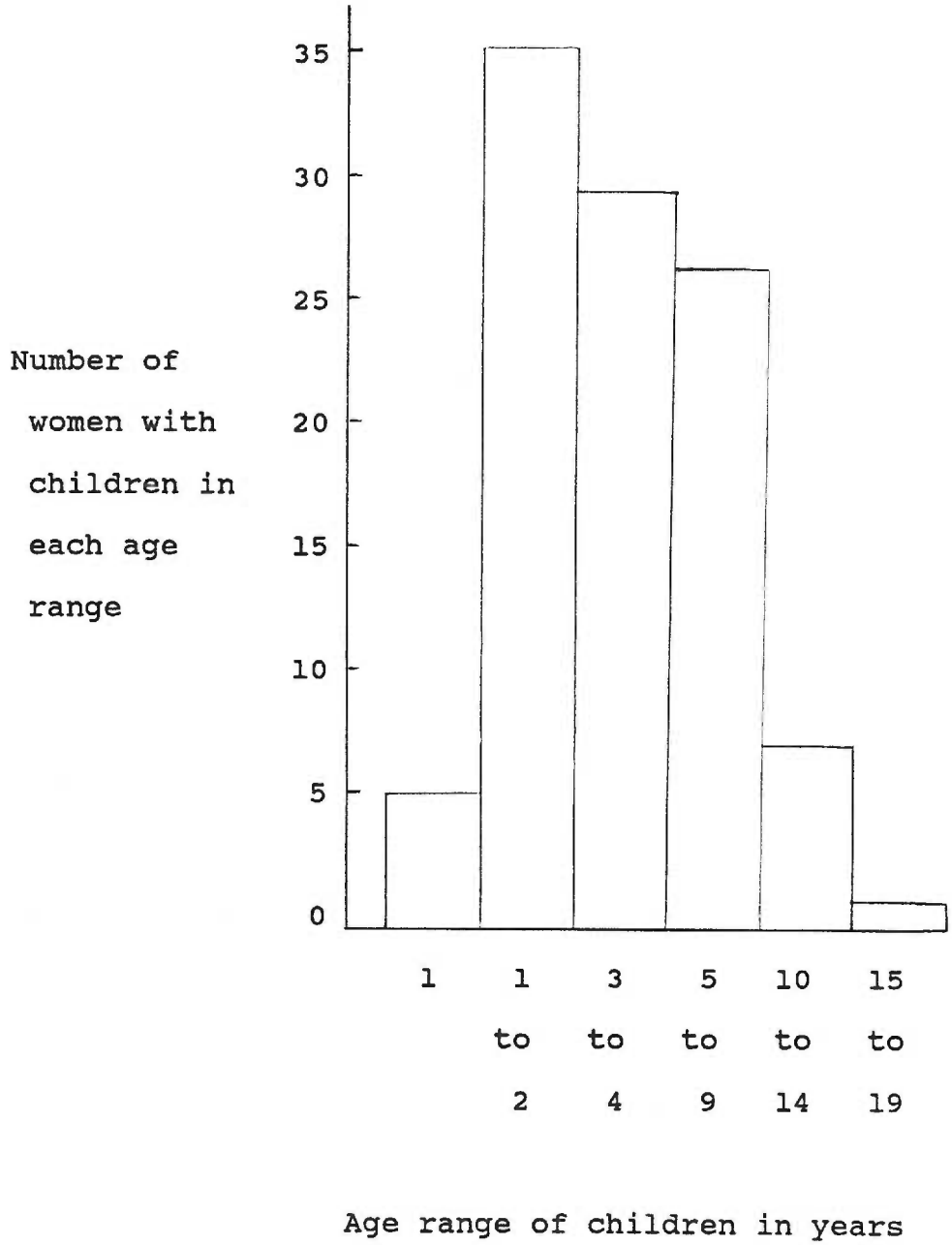

Figure 1. Number of sample women with children in each age range.

The most common diagnosis which resulted in hospitalization of the sample women was premature rupture of the membranes (see Table 8). Premature onset of contractions and placenta previa were the next most common diagnoses.

Research Questions

This section presents the results of the four research questions. The next chapter contains a discussion of these results.

Research Question 1

The first research question of this study asked: How many network members are in the social support network of hospitalized antepartal women? To answer this question, each network member was counted as a case, and a mean number of network members was computed for the study sample.

The sample of 102 women named a total of 1078 network members. The size of the network for individual women ranged from 0 to 21 members. The mean size of the network was 10.56 members with a mode of 6 members.

Research Question 2

The second research question asked: How many network members are in each source category? The

Table 8

Frequencies of Diagnosis

Diagnosis	n	Adjusted frequency percent	Cummulative frequency percent
Premature rupture of membranes	26	26.5	26.5
Premature onset of contractions	19	19.4	45.9
Placenta previa	19	19.4	65.3
Pregnancy induced hypertension	9	9.2	74.5
Multiple gestation	6	6.1	80.6
Abruptio placenta	3	3.1	83.7
Diabetes	3	3.1	86.8
Polyhydramnios	2	2.0	88.8
UTI, pylonephritis	2	2.0	90.8
Rh sensitivity	1	1.0	91.8
Blood disorder	1	1.0	93.8
Cardiac disorder	1	1.0	94.8
Combination	3	3.1	97.9
Other	2	2.0	100.0

respondents were asked to describe the network member's relationship to them. To answer this question, each network member was assigned to a source category, based on the relationship stated by the respondent. The source categories were: spouse or partner; family or relatives; friends; work or school associates; neighbors; health care providers; counselor or therapist; minister, priest, or rabbi; and other.

The networks were first described by averaging the actual numbers of network members in each source category (see Table 9). The largest sector of the networks consisted of family or relatives with an average of 5.55 members belonging to that category. The next largest category was that of friends, with an average of 3.18 members from this source category in the typical network. Most networks had a spouse or partner, but some did not, consequently there was an average of 0.9 spouses or partners per network.

Table 9

Composition of Sample Networks by Average Number of Members in Each Category

Relationship	Mean	s.d.	Range	Mode
Spouse or partner	0.90	0.30	0-1	1
Family or relatives	5.55	3.28	0-15	5
Friends	3.18	2.76	0-14	0
Work or school associates	0.15	0.62	0-4	0
Neighbors	0.20	0.47	0-2	0
Health care providers	0.33	0.65	0-3	0
Counselors or therapists	0.03	0.22	0-2	0
Minister, priest, or rabbi	0.19	0.52	0-3	0
Other	0.04	0.24	0-2	0
Total average number	10.56	5.41	0-21	6

The social support network of hospitalized antepartal women was also described by percentages as shown in Table 10. Family or relatives, together with the category of spouse or partner, made up an average of 66% of the typical social support network. Friends contributed 27.4%, health care workers were 3.3% of the average network, and all other categories were each less than 2% of the average network.

Research Question 3

The third research question asked: What is the amount of functional support provided by the different source categories in terms of affect, affirmation, and aid? The scores tended to be clustered at the higher end of each subscale as shown in Table 11. For the purpose of answering this question, the nine source categories were collapsed into five categories as can be seen in Table 12. This was done to make the group sizes more similar for the purpose of statistical comparison. Spouse or partner, family or relatives, and friend were retained as distinct categories. The categories of work or school associates, neighbors, and others were combined into a category called non-professionals. Minister, priest, or rabbi; health care providers, and counselor or therapist were collapsed into a category called professionals.

Table 10

Composition of Average Sample Network by Mean Percentage of Network Members in Each Category

Relationship	Mean percentage	s.d.	Range of percent	Mode of percent
Spouse or partner	11.2	0.09	0-50	16.7
Family or relatives	53.0	0.22	0-100	50.0
Friends	27.4	0.20	0-100	0
Work or school associates	0.9	0.04	0-20	0
Neighbors	1.6	0.04	0-17	0
Health care providers	3.3	0.08	0-50	0
Counselor or therapist	0.2	0.01	0-11	0
Minister, priest or rabbi	1.3	0.02	0-25	0
Other	0.3	0.02	0-11	0

Prior to combining these six source categories into two categories, the individual areas did not contain enough members for the purpose of comparison to the three larger groups.

Table 11

Distribution of Scores on Subscales

	Subscale					
	Affect		Affirmation		Aid	
Score	n	percent	n	percent	n	percent
2	6	0.6	16	1.5	54	5.3
3	9	0.9	27	2.6	40	3.9
4	25	2.4	43	4.1	62	6.0
5	38	3.7	65	6.2	56	5.5
6	108	10.5	103	9.8	99	9.6
7	86	8.4	147	14.0	106	10.3
8	188	18.3	178	17.0	114	11.1
9	175	17.0	162	15.4	126	12.3
10	394	38.3	308	29.4	370	36.0

Table 12

Collapse of Relationship Categories

Original source categories	n	New source categories	n
Spouse or partner	92	Spouse or partner	92
Family or relatives	567	Family or relatives	567
Friends	324	Friends	324
Work or school associates	15	Non-professionals	39
Neighbors	20		
Other	4		
Health care providers	34	Professionals	56
Counselor or therapist	3		
Minister, priest, or rabbi	19		

There were significant differences between source category group means for each of the three subscales when three one-way analyses of variance were done ($F=17.32$, $df=4$, p .001 for source of affect; $F=16.81$, $df=4$, p .001 for source of affirmation; and $F=23.45$, $df=4$, p .001 for source of aid). Affect means ranged from 9.38 (Spouse or partner) to 7.23 (Non-professionals) (see Table 13). The means on the affirmation scale ranged from 9.27 (Spouse or partner) to 6.82 (Non-professionals) (see Table 14). The range of means on the aid scale were 9.74 (Spouse or partner) to 6.19 (Professional) (see Table 15). Spouse or partners scored higher than all other groups on all three subscales of affect, affirmation, and aid. Table 16 displays the rank order of source category scores for each subscale. The rank order for the affect scale, from highest to lowest mean, is spouse or partner, family or relatives, friends, professionals, non-professionals. For affirmation, the rank order is spouse or partner, friends, professionals, family, non-professionals. For aid, the rank order is spouse or partner, family or relatives, friends, non-professionals, professionals.

Table 13

Mean Scores by Source Categories on Affect Subscale

Source category	Mean	s.d.
Spouse or partner	9.38	1.28
Family or relatives	8.48	1.80
Friends	8.15	1.91
Non-professionals	7.23	1.69
Professionals	7.43	1.69
Sample	8.36	1.80

Note. $F=17.32$; $df=4$; $p \leq .001$.

Table 14

Mean Scores by Source Categories on Affirmation Subscale

Source category	Mean	s.d.
Spouse or partner	9.27	1.54
Family or relatives	7.59	2.21
Friends	7.99	1.77
Non-professionals	6.82	2.05
Professionals	7.83	1.59
Sample	7.84	2.06

Note. $F=16.81$; $df=4$; $p \leq .001$.

Table 15

Mean Scores by Source Categories on Aid Scale

Source category	Mean	s.d.
Spouse or partner	9.74	0.65
Family or relatives	7.58	2.60
Friends	7.47	2.23
Non-professionals	6.84	2.69
Professionals	6.19	2.74
Sample	7.64	2.50

Note. $F=23.45$; $df=4$; $p \leq .001$.

Table 16

Rank Order of Highest to Lowest Mean on Subscale Scores by Relationship Category

Source category	Affect	Affirmation	Aid
Spouse or partner	1	1	1
Family or relatives	2	4	2
Friends	3	2	3
Non-professionals	5	5	4
Professionals	4	3	5

Research Question 4

The fourth research question asked: Are there differences between the source categories in terms of the amount of each type of functional support provided? The same five source categories used to answer research question 3 were used to answer this question. A multiple range test, the Scheffe' procedure, was used for statistical analysis.

Using the Scheffe' test, it was found that there were significant differences between some of the source category group means on the affect subscale (see Table 17). Spouse or partner was significantly different from all other source category groups.

Family or relatives was significantly different from non-professionals and professionals. The friends category was significantly different from non-professionals.

Table 17

Pairs of Groups Significantly Different at the .05 Level on the Affect Subscale

	Source category				
	4	5	3	2	1
4					
5					
3	*				
2	*	*			
1	*	*	*	*	

Note. 1=Spouse or partner, 2=Family or relatives, 3=Friends, 4=Non-professionals, 5=Professionals, *=significant difference between groups, $p \leq .05$.

There were no significant differences between group means on the affect subscale between the

following source category groups. Family or relatives was not significantly different from friends. Friends was not significantly different from professionals. Professionals was not significantly different from non-professionals.

There were significant differences between certain source category group means on the affirmation subscale (see Table 18). Spouse or partner was significantly different from all other catagories, and

Table 18

Pairs of Groups Significantly Different at the .05 Level on the Affirmation Subscale

Source category	4	2	5	3	1
4					
2					
5					
3	*				
1	*	*	*	*	*

Note. 1=Spouse or partner, 2=Family or relatives, 3=Friends, 4=Non-professionals, 5=professionals, *=significant difference between groups, $p \leq .05$.

friends was significantly different from non-professionals.

There was no significant difference between family or relatives and the category of non-professional on the affirmation subscale. Neither was there a significant difference between friends and either the category of family or relatives , or professionals. There was no significant difference between professionals and non-professionals, or professionals and family or relatives on this subscale.

The Scheffe' test demonstrated differences between some source category group means on the aid subscale (see Table 19). Spouse or partner were significantly different from all other groups. Both family or relatives and friends were significantly different from professionals.

There were no significant differences on the aid scale between the following groups. Family or relatives and neither the category of friends or non-professionals were significantly different. Friends and non-professionals were not significantly different. Also, non-professionals and professionals were not significantly different.

Table 19

Pairs of Groups Significantly Different at the .05 Level on the Aid Subscale

	Source category				
	5	4	3	2	1
5					
4					
3	*				
2	*				
1	*	*	*	*	

Note. 1=Spouse or partner, 2=Family or relatives, 3=Friends, 4=Non-professionals, 5=Professionals, *=significant difference between groups, $p \leq .05$.

Chapter IV

Discussion of Findings

This section begins with an analysis of the reliability testing of the Norbeck Social Support Questionnaire. This is followed by a discussion of sample characteristics and each of the research questions.

Reliability

Reliabilities as determined in this study are difficult to compare and contrast with those calculated by Norbeck et al. (1981). Curry (1985) utilized the same method of calculating internal consistancy reliability as Norbeck, and consequently those results are comparable. Norbeck calculated a mean score for each respondent on each question and calculated the reliabilities considering each respondent as a case. Curry also utilized that method with 100 cases. In the present study the reliabilities were calculated by considering each network member to be a case. Consequently, the number of cases was much larger, ranging from 983 to 1049 on the different subscales, and less information was lost by avoiding the process of averaging across network members, as was done by Norbeck et al. and Curry.

The Cronbach's alpha for the functional scale,

consisting of the three subscales, was .99 in the Curry study and .84 in this study as shown in Table 2. Also, the Cronbach's alpha for every subscale was lower in this study than those found by Curry. Norbeck did not report alpha coefficient results. The scales, in descending order by Cronbach's alpha were; affect, affirmation, and aid. While the actual alphas levels were different, the order of greatest to least alpha coefficient was the same for the Curry study and this study.

In the Norbeck study and in this study, the aid items had the lowest inter-item correlation coefficients when correlated with affect or affirmation items, as shown in Tables 1 and 20. The higher correlations were seen when affect and affirmation items were correlated with each other. The highest correlations resulted from the two items of each subscale. Curry did not report inter-item correlations. Norbeck stated that the high correlations between the affect and affirmation items suggested that these two items might not be distinct. The results from this study indicated that they may be distinct, as the correlations are not as high as they were for Norbeck. However, the results are not comparable since different statistical methods were

used.

Table 20

Interitem Correlation Coefficients for Subscale Items on Norbeck Study (1981)

Item	Afct 1	Afct 2	Afrm 1	Afrm 2	Aid 1	Aid 2
Afct 1						
Afct 2	.97					
Afrm 1	.95	.96				
Afrm 2	.97	.98	.96			
Aid 1	.76	.78	.75	.78		
Aid 2	.72	.74	.72	.76	.89	

Note. Afct 1 = Affect question 1, Afct 2 = Affect question 2, Afrm 1 = Affirmation question 1, Afrm 2 = Affirmation question 2, Aid 1 = Aid question 1, Aid 2 = Aid question 2.

The higher correlations between the two items from each of the subscales indicate that the items more closely measure the same concept than the other items. The lower correlations between the aid items and the other items suggest that the aid items measure

a more distinct type of the support than the affect and affirmation items.

Sample Characteristics

All of the findings must be considered within the context of the sample characteristics. Many of the women had not been hospitalized with this pregnancy prior to the study, and consequently had not had to cope with this specific crisis prior to data collection. It is possible that women who have had prior experience with antepartal hospitalization have incorporated changes into their social support networks for this specific crisis. Women who have experienced antepartal hospitalization may differ from women who have had no previous experience with this stress on their support networks.

The women had been in the hospital for this pregnancy for a varied amount of time with a wide range of 4 hours to 37 days. Consequently results cannot be attributed to either short-term or long-term hospitalization effects. Women who have been hospitalized for a long period of time may modify their social support networks to meet their needs as they become familiar with the crisis over time. Their networks may differ in composition from women to whom the hospitalization situation is still a new and

unfamiliar experience. The differences between these groups were not examined.

The women represented a wide range of ages, but tended to be clustered in the 25 to 26 year age group, as would be expected for child-bearing women. Most of the sample were married. The number of women living with a partner was less than the number married. This number may have been decreased by women who were actually separated from their spouse and were reluctant to state so, and may have been increased by the number of women who may be single and living with a partner. There were no missing data for the marital status item, but there were 11 missing from the sample for the living-situation item. Approximately half the women were homemakers and half were employed or students. Consequently, an association between complications of pregnancy with employment outside of the home cannot be made. The annual family income data represented a wide range with 10 to 20% of the sample in each income category below $40,000. This aspect of the data permits greater range of generalizability of the results to a variety of economic states. The large percentage of women at or below the poverty level permits generalization to low-income populations.

The women in the sample tended to be Christian women if one combined the categories of Protestant, Catholic and Christian. They were predominantly Caucasion. Both of these characteristics reflect the population in the State of Oregon but limit the generalizability to religious and ethnic minorities. The majority of the women had children at home, with the majority of the children being very young. The women were mostly in the 28 to 33 week range of their pregnancies, and most of them were hospitalized for either premature rupture of the membranes, premature onset of contractions, or a placenta previa.

Research Question 1

Norbeck (1981) found the average network size to be 13 members. The average network size for this study was 10.56. The difference in network size may be due to the fact that Norbeck's sample were students and were consequently immersed in a situation of great potential support from classmates. Students are stressed by the experience of attending school, which may or may not compare to the level of stress experienced by hospitalized antepartal women. Many of the women in this study were separated from their support network and were unable to mobilize to reach their network members. The students were also

separated from their usual sources of support, but the students had mobility potential. The students may also have had larger networks because they were not as needy as the hospitalized women, had not tested their networks recently, and consequently had not discovered if there were members in their networks on whom they could not rely.

Network size ranged from 0 to 21 members. There are 20 blanks provided for members, and one respondent wrote in a 21st member. While the mode was 6 network members, 11 respondents named 20 members in their networks. It is possible that there is a response bias toward feeling a need to fill in all of the blanks on the questionnaire.

Research Question 2

The second research question results gave an average number of network members for each source category. A spouse or partner was named in most networks (n=92). This was consistant with Curry's (1985) finding that women counted on their partners for support. The partner was ranked first as a source of support in the Curry study. However, many partnered women were not living with their partner, and that may impair potential support. Curry also found that the women were concerned about their

partner. Possibly this concern is a direct result of the greater support demands placed on the partner during the crisis of antepartal hospitalization. Ten women did not name a spouse or partner in their network. Lack of a partner could be explained by either physical or emotional separation from a partner or a planned unpartnered pregnancy.

There were three subjects who had no family members or relatives in their support network. Usually pregnancy is a time when the pregnant woman has increased involvement with her family, and this is an unexpected finding for this sample. This could be a result of geographical or emotional isolation from family. In a subject who is alienated from her family because of the pregnancy or for other reasons, or who feels misunderstood by her family, it could be expected that no family or relatives would be named.

There were twenty women in the sample who had no friends in their support network. There are several possible explanations for the lack of friends named. One explanation would be that persons who have an extended and supportive family network do not need to turn to friends for support. Another possible explanation would be that a person may be alienated from friends because of an untimely pregnancy or other

personal reasons.

There were fewer members in the networks from all other categories. Almost half of the women were homemakers, and consequently one would not expect them to have work or school associates. Also, once a friend is made at work, this association might be reclassfied as a friend. This could be another explanation for the low numbers in this category. The category of neighbors also was small. Neighbors may also be subject to reclassification as a friend once their status changes. The small number of neighbors named may also be a product of our increasingly transient and isolated society.

Health care providers constituted a small segment of the average network. Many women were newly admitted to the hospital and consequently the association was short-term and the subjects possibly did not feel a relationship had been established. Most high-risk women are transferred into the care of a specialist when their problems become acute. Consequently, their care providers may be new and unfamiliar persons. The small numbers of mental health professionals named as support persons may indicate a mentally healthy study sample or counseling may be a lower priority when threatened with an acute physical

health problem. It also may be an indication of the fact that counseling is expensive and is considered by many to be an unaffordable luxury. Another possibility is that the counselor may not be viewed as a source of support beyond the confines of the structured visits to the counselor's office.

Although women were likely to state a religious preference, few named a religious figure in their social support network. This may be an indicator of the distance between religious leaders and their congregations, or may simply mean that many of the subjects who stated a religion may not attend church or be involved in a congregation. Most of the people named in the "other" category were babysitters (n=4).

One factor to be considered in all categories is the fact that many women who are hospitalized for antepartal care in Oregon are transported to a regional care center from small communities throughout the state. Consequently, a women who is hospitalized in her home town may be relying on her usual support system, while a women who is hospitalized far from her home may be relying on a hastily constructed temporary network of only those people who are able to contact her or visit her in the hospital. She may have included in her network people who are in close

proximity to the hospital but on whom she would not normally rely.

Research Question 3

The scores on every functional subscale of affect, affirmation, and aid tended to be clustered toward the higher end of the possible scores, as shown in Table 11. This is an expected result, as the subjects were asked to name persons who provide personal support, and it would not be expected that subjects would name unsupportive persons.

Spouses or partners scored the highest on every subscale, thus providing the greatest amount of affect, affirmation and aid support. This finding is consistant with Curry's (1985) study results in which the partner was ranked first as a source of support. This would be expected, as this is a vouluntary relationship that a subject would generally seek and maintain for positive reasons, and the dependence on the spouse or partner may increase during pregnancy and childbearing.

Family or relatives had the second highest score on both the affect and the aid subscales, but were the fourth highest on the affirmation subscale. In the Curry study (1985), family or relatives were ranked fourth as a source of support. Since family members

are not voluntary relationships, it is not surprising that subjects might be bound by family ties to persons who do not agree with their views. However, the traditional concept of family implies that love and assistance are to be rendered despite differences. The partners' family members were included in this catagory. They were considered to be the equivalent of in-laws. The aid score in the family or relatives category was decreased when there were a number of small children named. The children scored high on affect and affirmation subscales, but were too young to be of much practical assistance, and consequently received the lower scores on the aid catagory. Curry (1985) found that the primary concern of women was for the children at home. It is interesting to note that this is a reciprocal relationship, and that the hospitalized women were depending on their children for support.

Friends scored the third highest on affect and aid, but gained the second highest score on the affirmation subscale. In the Curry study friends were ranked sixth as a source of support. Friendship is also a relationship which is entered into voluntarily, as is spouse or partner, and it is logical that a person would seek the company of those that share and

support her views. Hence, the highest scores on the subscale of affirmation would indicate the voluntary relationships of partners and friends.

The non-professional category which includes work or school associates, neighbors, and other (babysitters) scored the lowest on affect and affirmation, but the second lowest on the aid subscale. These relationships are one of geographic proximity and consequently concrete assistance may be all the relationship has to offer.

Professionals ranked the lowest on aid, the second lowest on affect and the third lowest on affirmation. In the Curry study (1985) medical staff were ranked second and nurses were ranked third as sources of support. Religious beliefs were ranked seventh. Professionals, including the health care providers, religious figures and counselors or therapists, are trained to be active listeners. To a lay person, this supportive listening may be interpreted as agreement, consequently the higher score on affirmation. This active listening is also a caring expression, which may explain why the professionals were not the lowest scorers on the affect subscale. The aid questions center around assistance which is offered in the outside world as opposed to the professional setting.

The relationship with the professional does not usually extend beyond the professional environment, consequently the low aid score may not reflect assistance rendered in the professional's area of expertise.

There were differences in the ranking of sources of social support in the Curry study and the present study, even though the sample for the present study is a subsample of the Curry study sample. The Curry study asked a single question regarding how helpful certain individuals and activities were in coping with the specific situation of hospitalization. In contrast, the NSSQ asked questions regarding specific types of support in any given situation. Consequently, the Curry study elicited a different response and probably measured a different interpretation of the concept of social support, since the operationalization of the concept differed from Norbeck's operationalization. Given the question as stated in the Curry study, it is logical that health care professionals would be ranked as highly supportive.

Research Question 4

When the comparisons were made among all five source categories using the Scheffe' procedure, it was

found that not all subscale means were significantly different from every other subscale mean. The spouse or partner source category mean score was significantly higher than all other categories on all subscales. This seems to reflect the pregnant woman's increased emphasis on the spouse or partner's role during the time of pregnancy and childbirth as exemplified by the partner being named as the primary source of support in Curry's (1985) study.

There was no significant difference between family or relatives and friends on all subscales. This indicates that these two groups provided similar levels of support in all three functional capacities. This might be explained by the fact that the sample was primarily middle-class and Caucasion. Western culture has brought friends into the circle of family, partially as a result of the transience of modern society. This phenomenon may, in part, explain why these two groups do not significantly differ in the amount of support provided. There were no significant differences between the source categories of professionals and non-professionals on all three subscales. These two groups have in common an emotional distance from the respondent, and this could explain the lack of difference between the groups.

Chapter V

Summary

This chapter begins with a summary of the study. Limitations of the study, implications for nursing practice, and recommendations for future research conclude this chapter.

Summary

The purpose of this study was to describe selected social network and social support characteristics of high-risk hospitalized antepartal women. The investigator wished to identify the size of the network and the numbers of network members in each source category. The investigator also wished to determine if the sources of support differed with respect to the amounts of each type of functional support provided.

The purpose of this study evolved from the fact that technological advances have been made in the area of high-risk antepartal management, and consequently increased numbers of women are hospitalized when either maternal health or the outcome of pregnancy is threatened. To keep pace with the advances in physical care, research must be conducted in regard to the psychosocial aspects of antepartal hospitalization.

The review of the literature described the positive association between social support and general mental and physical health. The literature also described a positive association between social support and favorable pregnancy outcomes. The fact that antepartal hospitalization is a stressful and frustrating experience with repercussions for the entire family was discussed. Social support has been minimally studied in relationship to the situation of hospitalized antepartal women. Some of the difficulties of defining and measuring social support were reviewed.

The conceptual framework for this study described the individual's social support network as a dynamic entity and an open system. The network is open to both gaining and losing members, and moves and changes with the individual throughout the life-course. The Norbeck Social Support Questionnaire (NSSQ) was developed directly from this framework, and measures all dimensions of the social support network deliniated in Kahn and Antonucci's definition. For the purpose of this study the network members and their source categories were examined, and the functional aspects of support: affect, affirmation, and aid, were analyzed.

This study used a descriptive design and was a secondary analysis of the data collected by Curry (1985). The NSSQ was administered to a convenience sample of 102 high-risk antepartal women who were hospitalized in one of three regional care centers in a major city. The sample women tended to be in their mid-twenties, Caucasion, Christian, high-school graduates, and married with children. There was a wide distribution of income level. The sample was evenly divided between homemakers and women who were employed outside the home. Most of the women in the sample were hospitalized for as a result of a complication of pregnancy

The sample network size was 10.56 members. A mean of 5.55 members were family or relatives, 3.18 members were friends, and 0.9 members were a spouse or partner. The other source categories contributed the remaining members. The category of spouse or partner provided significantly more functional support than all other source categories in terms of affect, affirmation, and aid. The two categories of family or relatives and friends provided the next highest amounts of support on the subscales of affect and aid, but there were no significant differences between these two groups. Professional and non-professionals

tended to have lower scores on most of the subscales.

Limitations

Several limitations must be considered. The sample size of 102 subjects was adequate for drawing conclusions. However, the findings should not be generalized to single women, as the sample population was primarily married. Also, the sample was disproportionally Caucasion, and therefore the findings are not generalizable to minorities. The respondents were hospitalized, and consequently they were displaced from their usual environments. The support network characteristics described may be very different from the characteristics of the networks on which the women depend when not under the disruptive influence of hospitalization. Therefore, the results should not be applied to non-hospitalized women.

The fact that many women are transported from outlying areas for the purpose of antepartal hospitalization must be considered. The differences between women hospitalized in their home town and women transported from surrounding areas was not examined. There may be significant differences in the social support network of these two groups as a result of the geographical influence on availability of support.

A portion of the limitations of this study relate to the instrument. The instrument measures the respondents' perception of support. This is not necessarily actual existing support if the respondents' perceptions are altered in any way. The instrument reports social support from only the view of the respondent. It does not describe a reciprocal support relationship.

A limitation of the aid subscale became apparent when women listed their small children as network members. The children were too small to offer support in the form of aid, as aid was expressed in the items of that subscale. Consequently, children scored very low on this subscale. Many respondents named network members that were separated from the respondent by a great distance. These members also scored very low on the aid subscale items. Possibly there are types of aid that small children and long-distance associates can provide, but this was not measured by this subscale.

Implications for Nursing Practice

The results of this study provide a description of the social support network of hospitalized antepartal women. The results are useful to the nurse for assessment of the patient's social support network.

If the patient's network is substantially smaller than the average network as described by this study, it might be an indication for further assessment of the patient's social support network. The results are to be interpreted as an average, with the understanding that the size of social support networks exist on a continuum, and that the averages reported here are not to be considered "normal" as opposed to "abnormal".

The findings can also be used to make recommendations to a patient regarding potential sources of support if a patient expresses a need and feels that her social support network is inadequate. The nurse can refer to the results of this study and give the patient suggestions for possible sources of support such as the source categories which were used in this study.

Women in this study sample reported relying heavily on their spouse or partner for support. This finding indicates to the nurse that the partner must be included in the nursing assessment. Family members are often neglected by the nursing staff, especially when the patient has acute physical needs. The partner is at high-risk for stress since the pregnant woman is counting on the partner so heavily. This finding may indicate a need for professional support

services for the partner.

Women also named many small children in their support networks. Heavy burdens may be shifted to children when the mother is absent from the home. These responsibilities may be inappropriate, even on a temporary basis, for the child's age and maturity. Nurses should include the children of hospitalized antepartal women in their family assessment.

In many institutions nurses are involved in policy-making. The results of this study indicate a need for open visitation policies. The hospitalized women are separated from their sources of support and contact with their support network needs to be encouraged. Nurses can also confirm that adequate telephone resources are available to the patients.

Curry's (1985) finding that social support is negatively associated with risk scores has nursing implications. The nurse is often responsible for taking the initial patient history at the first prenatal visit. The nurse should incorporate an assessment of social support into that interview, and assist the patient in developing their social support network if the patient perceives that it is lacking. This process could also effectively be incorporated into preconceptual counseling.

Recommendations for Future Research

This study accomplished only a small part of the initial step in examing social support in the context of antepartal hospitalization. Only a portion of the many aspects of social support networks have been described by the specific research questions of this study.

Further research should begin with an extensive description of the social support network of hospitalized antepartal women. More than one instrument could be employed and this would broaden the perspective of the study. The sample could be compared to the partners of hospitalized antepartal women to assess the support network from more than one perspective.

The next step in further research would be to correlate social support with other coexisting variables and with outcomes. Social support may be positively associated with reduced antepartal stress, increased coping, or more favorable pregnancy outcomes. The results of these observations would be pertinent to both medical and nursing care.

Access to social support network members is also a potential issue with hospitalized antepartal women. Even though a network may be adequate, restricted

visitation may reduce the effectiveness of the network. Within this area lies the question of whether or not there are differences between women hospitalized close to home and women hospitalized far from home. There is need for further research in this area.

The instrument used in this study had two limitations that could be examined in a future study. A possible response set existed that was apparent in the number of people who filled in all possible blanks for network members. Omitting the blanks so there is no "expected" number of network members might eliminate this problem. The problem of the low scoring groups on the aid subscale could also be investigated further. It is possible that the aid items could be redesigned to obtain information reflecting a broader definition of aid.

Social support is an important psychosocial variable, especially in the situation of antepartal hospitalization. Future research will identify and describe the exact role of social support in this clinical setting. In the meantime, clinicians will continue to observe the positive influence and the necessary and vital function of social support, and will continue to assist the hospitalized women in

maximization of the potential of their social support networks.

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APPENDIX A

The Norbeck Social Support Questionnaire

SOCIAL SUPPORT QUESTIONNAIRE

PLEASE READ ALL DIRECTIONS ON THIS PAGE BEFORE STARTING.

Please list each significant person in your life on the right. Consider all the persons who provide personal support for you or who are important to you.

Use only first names or initials, and then indicate the relationship, as in the following example:

Example:

	First Name or Initials	Relationship
1.	MARY T.	FRIEND
2.	BOB	BROTHER
3.	M.T.	MOTHER
4.	SAM	FRIEND
5.	MRS. R.	NEIGHBOR

etc.

Use the following list to help you think of the people important to you, and list as many people as apply in your case.

- spouse or partner
- family members or relatives
- friends
- work or school associates
- neighbors
- health care providers
- counselor or therapist
- minister/priest/rabbi
- other

You do not have to use all 24 spaces. Use as many spaces as you have important persons in your life.

WHEN YOU HAVE FINISHED YOUR LIST, PLEASE TURN TO PAGE 2.

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University of California, San Francisco

Number _____
Date _____ [1-4]

PERSONAL NETWORK

	First Name or Initials	Relationship	
1.			[32]
2.			[33]
3.			[34]
4.			[35]
5.			[36]
6.			[37]
7.			[38]
8.			[39]
9.			[40]
10.			[41]
11.			[42]
12.			[43]
13.			[44]
14.			[45]
15.			[46]
16.			[47]
17.			[48]
18.			[49]
19.			[50]
20.			[51]
21.			[52]
22.			[53]
23.			[54]
24.			[55]

For each person you listed, please answer the following questions by writing in the number that applies.

1 = not at all
2 = a little
3 = moderately
4 = quite a bit
5 = a great deal

Question 1:

How much does this person make you feel liked or loved?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

Question 2:

How much does this person make you feel respected or admired?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

1 = not at all
2 = a little
3 = moderately
4 = quite a bit
5 = a great deal

Question 3:

How much can you confide in this person?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

Question 4:

How much does this person agree with or support your actions or thoughts?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

1 = not at all
2 = a little
3 = moderately
4 = quite a bit
5 = a great deal

Question 5:

If you needed to borrow $10, a ride to the doctor, or some other immediate help, how much could this person usually help?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

Question 6:

If you were confined to bed for several weeks, how much could this person help you?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

Question 7:

How long have you known this person?

1 = less than 6 months
2 = 6 to 12 months
3 = 1 to 2 years
4 = 2 to 5 years
5 = more than 5 years

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

Question 8:

How frequently do you usually have contact with this person? (Phone calls, visits, or letters)

5 = daily
4 = weekly
3 = monthly
2 = a few times a year
1 = once a year or less

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

PLEASE BE SURE YOU HAVE RATED EACH PERSON

9. During the past year, have you lost any important relationships due to moving, a job change, divorce or separation, death, or some other reason? [57]

_____ 0. No
_____ 1. Yes

IF YES:

9a. Please indicate the number of persons from each category who are *no longer available* to you.

_____ spouse or partner [58]
_____ family members or relatives [59-60]
_____ friends [61-62]
_____ work or school associates [63-64]
_____ neighbors [65-66]
_____ health care providers [67]
_____ counselor or therapist [68]
_____ minister/priest/rabbi [69]
_____ other (specify) _____ [70] [71-72]

9b. Overall, how much of your support was provided by these people who are no longer available to you? [73]

_____ 0. none at all
_____ 1. a little
_____ 2. a moderate amount
_____ 3. quite a bit
_____ 4. a great deal

AN ABSTRACT OF THE THESIS OF

MARJORIE L. GRIERSON

For the degree of Master of Science in Nursing

Date of Thesis Defense: February 1986

Title: A Description of Selected Social Network and Social Support Characteristics of Hospitalized Antepartal Women

Approved:_____

Mary Ann Curry, R.N., D.N.Sc., Thesis Advisor

The purpose of this study was to describe selected social network and social support characteristics of hospitalized antepartal women. The investigator wished to identify the size of the network and the numbers of network members in each source category. The investigator also wished to determine if the sources of support differed with respect to the amounts of each type of functional support provided.

This study used a descriptive design and was a secondary analysis of data collected in a previous study. The Norbeck Social Support Questionnaire (NSSQ) was administered to a convenience sample of 102 high-risk antepartal women who were hospitalized in any one of three regional care centers in a major

city. The sample women tended to be in their mid-twenties, Caucasion, Christian, high-school graduates, and married with children. There was a wide distribution of income level. The sample was evenly divided between homemakers and women who were employed outside the home. Most of the women in the sample were hospitalized for a complication of pregnancy.

The average sample network size was 10.56 members. A mean of 5.55 members were family or relatives, 3.18 members were friends, and 0.9 members were a spouse or partner. The other source categories contributed the remaining members. Source categories differed significantly for all three subscales using analysis of variance procedures. The category of spouse or partner provided significantly ($p \leq .05$) more functional support than all other categories in terms of affect, affirmation, and aid using the Scheffe' procedure. The two categories of family or relatives and friends provided the next highest amounts of support on the subscales of affect and aid, and there were no significant differences among the groups. Professionals and non-professionals tended to have lower scores on most of the subscales,and there were no significant differences among these two groups.

Generalizability of the study findings was limited by the fact that the sample was disproportionally Caucasion and married. A portion of the women were transported from outlying areas, and the differences between those women and women hospitalized in their home town were not examined. The findings from the instrument were limited by the narrow scope of the questions.

The findings of this study are useful to the nurse for assessment and evaluation of tha patient's social support network. The results also make possible recommendations to the patient regarding potential sources of support.