

Social Support, Self-Esteem, and Pregnancy-Related Attitudes
Among Pregnant Adolescents

by

Heather El Gamal

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requirements for the degree of
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HEATHER EL GAMAL

A thesis submitted to the Faculty of Graduate Studies of
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ABSTRACT

The purpose of this exploratory study was:

1. To determine whether there is an improvement in support satisfaction, self-esteem, and attitudes towards pregnancy over the study period among pregnant adolescents, exposed to two different types of prenatal services.
2. To determine whether support satisfaction is related to levels of self-esteem and pregnancy-related attitudes among pregnant adolescents in this study.
3. To describe observed levels and fluctuation in social support, self-esteem, and pregnancy-related attitudes in relation to cultural differences, type of prenatal services, personal characteristics, and life situations of the study participants.

Standardized instruments were used to measure social support variables, self-esteem, and pregnancy-related attitudes. Case studies were developed, incorporating qualitative data. Instruments were administered during individual interviews with participants, conducted at monthly intervals during the second and third trimesters of pregnancy and at one month post-delivery. The participants who completed the study were eleven pregnant women, ranging from 16 to 23 years of age, who were registered at Lindenvue Residence (Group A) and two pregnant adolescents who were living in the community (Group B).

All participants had a high perceived need for social support which generally decreased while support satisfaction increased. Support networks averaged six members, including family, friends, and professionals.

Pregnancy-related attitude scores were almost all in the high range and generally increased as support satisfaction increased. Attitude towards baby was consistently higher than attitude towards pregnancy. Both scores declined slightly at the final interviews.

Sub-groups of participants who showed the greatest improvements were young women who were freeing themselves temporarily from a disruptive or deprived environment by staying at Lindenview, and participants from stable middle-class backgrounds, with stable supports and aspirations for future careers. Others who were experiencing ongoing negative events and several participants who were unrealistic and immature benefited less from available supports. Group B participants had a high need for support, less support from professionals, and less positive feedback.

A setting where there is sharing of common experiences, freedom to maintain outside contacts and meet socialization needs, provision of support, guidance, and facilitation of supportive family relationships by professionals was beneficial for the group of pregnant teens in this investigation. Educational strategies which build upon the growing sense of

competence, positive attitudes towards baby, and availability of supports among these young women may be employed to enhance future prospects for themselves and their children.

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Chapter I

INTRODUCTION

1.1 OVERVIEW

Adolescent pregnancy is a stressful life event which clearly challenges adaptive capacities, both physiological and psychological, and calls for modification of health-related behaviors. The effect of stressful events on one's health depends, to a large extent, on social support and personal resources for coping.

Life stress during pregnancy, which is related to psychological distress, depression, and anxiety (Colletta, Hadler, & Gregg, 1981; Norbeck & Tildon, 1983) may also contribute to pregnancy complications and interfere with fetal growth (Gorsuch & Key, 1974; Norbeck & Tildon, 1978; Picone, Allen & Schramm, 1983). Evidence relating to the latter association, however, is inconsistent (Coddington, 1972; Nuckholls, Cassel & Kaplan, 1972). In general, the relationships found between life events and health, although statistically significant, are frequently modest. Stronger results have been obtained when mediating variables such as social support have been incorporated in the research design.

Extensive research findings have given credibility to the hypothesis that social support may play an important role in modifying the deleterious effects of life stress on health and well-being (Cassel, 1974; Cohen & Hoberman, 1983; Dean & Lin, 1977; Hamburg & Killilea, 1978). A greater awareness of the types and sources of social support which may have a beneficial effect on health may help to delineate the mechanisms which explain these effects (Thoits, 1982). The belief that the mechanisms involve, primarily, cognitive perceptions of stress and social support is consistent with an existing body of research (Coyne & Lazarus, 1980; Hamilton, 1979).

Social support as a buffer of life stress during pregnancy has been indicated in several studies (Colletta et al., 1981; Norbeck & Tildon, 1983; Nuckholls et al., 1972). A direct linkage between social support and pregnancy complications has been reported (Barrera, 1981) and a direct, additive effect of social support on psychological well-being has been demonstrated among diverse population groups (Andrews, Tennant, Hewson, & Vaillant, 1978; Turner, Frankel & Levin, 1983; Williams, Ware, & Donald, 1981).

Social support may also be linked with mediating variables which minimize the experience of stress. In particular, social support may contribute to more effective coping responses and the development of positive attitudes toward the self and pregnancy which, in turn, may reduce stress and

improve health outcomes (Cohen & Syme, 1985; Colletta, Handler, & Gregg, 1981; DeAraujo, Van Arsdell, & Holmes, 1973; Gore, 1978; Heinstein, 1967). The enhancement of self-esteem through social support is well-documented (Moss, 1973; Schmid, 1981; Wills, 1983) and self-esteem improvement appears to be closely tied with reduction of levels of stress (Colletta et al., 1981; Kaplan, Robbins, & Martin, 1983; Lucas, 1972; Pearlin, Lieberman, Menaghan, & Mullan, 1977; Ziller, Smith, & Long, 1969) or anxiety (Fitts, 1972; Rosenberg, 1965).

Effective support systems and high self-esteem may also contribute to improvements in health behaviors (Gottlieb & Green, 1985) and fewer physical symptoms during and following pregnancy (Nuckholls et. al, 1972) as well as a greater ability to cope following delivery (Colletta et. al, 1981). Common social and economic consequences of adolescent motherhood such as dependence on welfare, broken families, and child abuse (Furstenberg, 1976; McKeny, Walters, & Johnson, 1979) may be reduced by increased social support during pregnancy.

Favorable settings for the provision of social support for pregnant adolescents may include maternity homes and health clinics offering comprehensive health and social services for young pregnant women.

This study is designed, primarily, to determine whether pregnant adolescents in two different settings experience improvements in psychosocial factors which enhance health and well-being, and to examine how changes in social support during pregnancy may coincide with changes in self-esteem and pregnancy-related attitudes. It is also of interest in this investigation to determine which type of support networks and support functions facilitate the stress-buffering process. Finally, an attempt is made to explain the inter-relationships of these variables among pregnant adolescents who have different ethnic backgrounds, socio-economic status, and life situations.

1.2 DEFINITION OF TERMS

1.2.1 Stress

In some of the early research in the area of stress, the physiological basis of stress was defined as a non-specific bodily response that is wearing on the biological system (Selye, 1956).

A psychosocial definition of stress, which is most appropriate in this study, assumes a damaging transaction between person and environment. Thus, stress is broadly defined by Lazarus (1971, p.54) as a problem arising out of a demand that taxes the system, be it a physiological system, a social system, or a psychological system, up to the limits of the potential to adapt, and the response of that system.

Furthermore, in keeping with the cognitive phenomenological tradition of Lewin (1935), the reaction to stress depends on how the person interprets or appraises the significance of a harmful, threatening, or challenging event.

1.2.2 Social Support

Conceptualization of social support shows extreme lack of consistency (Turner et al., 1983). Each definition of social support does focus, however, on the helping elements and processes of the social-relational systems in which the individual is located and is being supported by others (Eck-enrode & Gore, 1981).

Social network, a closely related term, refers to the structure and function of linkages between individuals, groups, or other institutions. Structural characteristics of networks include their size or number of members, density or extent to which the members know one another, homogeneity/heterogeneity of membership or extent to which members share the same values or lifestyle, and dispersion of members or ease with which members can have face-to-face contact and be called upon for help (Mitchell, 1969). These characteristics have proven to be useful indicators of the type of social support that is likely to be available through the network (Walker, Macbride & Vachon, 1977). Networks may also be categorized as friends, families or other individuals who provide social support.

Social support, on the other hand, refers to the impact that networks may have on an individual (Procidano & Heller, 1983). Measures of social support should allow for the possibility that many ties may be non-supportive as perceived by the individual. Accordingly, networks may be broken down into two types: One made up of strictly supportive members and another type made up of network members who, in addition to providing support, may also be a source of inter-personal conflict. It is useful to identify the unique support functions which are provided by various categories of support network members.

Appropriate definitions of social support include Cobb's definition (Cobb, 1974, p. 300):

"...information belonging to one or more of the following three classes:

1. Information leading the subject to believe he is cared for and loved
2. Information leading the subject to believe he is esteemed and valued
3. Information leading the subject to believe he belongs to a network of communication and mutual obligation"

Kaplan and colleagues (Kaplan, Cassel, & Gore, 1977) state that most definitions of social support address the degree to which an individual's needs for affection, esteem or approval, belonging, identity and security are met by interaction with others. These social needs may be met by socio-emotional aid such as affection, sympathy, understanding,

acceptance and esteem from significant others. The provision of instrumental aid such as advice, information, help with family responsibilities and financial aid (Thoits, 1982) also contribute to meeting those needs.

Following a review of research in the area of social support, as well as papers by Caplan (1976) and Hirsch (1980), the following categories of support functions which are relevant to pregnant teenagers have been defined by Barrera (1981):

1. Material aid - Providing material aid in the form of money and other physical objects
2. Physical assistance - Sharing of tasks
3. Intimate interaction - Interacting in a non-directive manner such that feelings and personal concerns are expressed
4. Guidance - Offering advice and guidance
5. Feedback - Providing individuals with information regarding themselves
6. Social Participation - Engaging in social interactions for fun, relaxation, and diversion from demanding conditions

These six functions of social support constitute the basis of a measure of social support which was adopted in this study and which is described in Chapter 3.

Using the same instrument as above, a measure of "support need" based on the same six support functions was obtained. Support need is the degree of perceived need for various types of social support during a specified time period. It is closely associated with the concept of anxiety; in Barrera's (1981) study, measures of support need were correlated with both anxiety ($r=.51$, $p<.001$) and a measure of stressful life events ($r=.36$, $p<.001$) (Barrera, 1981).

1.2.3 Self Esteem

Commonly-used definitions of self-esteem range from simple single-trait definitions (Rosenberg, 1979) to complex definitions related to self-concept (Fitts, 1972). Rosenberg (1965, p. 9) defines self-esteem as "the evaluation which an individual makes and customarily maintains regarding himself". It expresses an attitude of approval or disapproval. Self-esteem has been described as a process in which the person perceives characteristics of herself and reacts to these characteristics emotionally or behaviorally (Wells & Marwell, 1980, p. 64).

Self-esteem will be defined in this thesis as "a set of evaluations of the self-concept and its components" (Schmid, 1981, p. 4), following the Jessors in their work with adolescents (Jessor & Jessor, 1977). The subcomponents of the self which are incorporated in the definition relate to emotional well-being, relationships in general, and relationships with peers.

1.2.4 Pregnancy-related Attitudes

An attitude, in a broadly-defined sense, is a "learned disposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein, 1975, p. 6). The evaluative dimension has commonly been regarded as the most distinctive feature of attitudes (Thurstone, 1931; Osgood, 1951).

Attitudes toward pregnancy and baby are measured in this study using an instrument which incorporates semantic differential scales.

1.2.5 Coping

Although coping has not been included among the variables to be measured in this study, it is crucial to the understanding of the relationships in the theoretical model employed in this study (See Section 2.1).

Coping has been defined as "any response to external life strains that serves to prevent, avoid or control emotional distress" (Pearlin & Schooler, 1978, p. 3). Inherent in this concept of coping is the assumption that when an individual is faced with a potentially harmful event, something must be done to satisfy the demands of the situation to avoid a dysfunctional emotional reaction.

Categories of coping include:

1. Direct action coping - Responses that eliminate or modify the stress-producing situation. This type of response is usually most efficacious in preventing emotional distress, but is not always possible, due to lack of skills or resources (Lazarus, 1966; Pearlin & Schooler, 1978).
2. Change in perception of threat - Responses that control the meaning of the demanding experience after it occurs but before the emergence of stress. This category of response is common but some specific types in this category such as selective ignoring or focusing only on a positive aspect of an event may be less effective than other means such as positive comparisons (Pearlin & Schooler, 1978).
3. Stress-control - Responses that function to control stress by converting the endurance of unavoidable hardship into a moral virtue. This type of response is based on cultural beliefs and values (Lazarus, 1966; Pearlin & Schooler, 1978). Other ways of managing stress include eating, listening to music, smoking, and drinking (Colletta et al., 1981).

1.2.6 Stability of Variables

The following discussion refers to the usual degree of stability or instability of each of the variables. Periodic fluctuations in scores which were due to occurrences of negative events that affected the participant emotionally were occasionally observed in this study and may be regarded as exceptional.

1.2.6.1 Stability of Social Support

Although the degree of fluctuation of social support during pregnancy has been largely unexplored, it has been stated in the literature that "social support should not be regarded as a static variable" (Dean & Lin, 1977, p. 413). Dean and Lin (1977) further explained that social support would be expected to change as a result of various types of stressors. While an inverse relationship between stress and social support would generally be expected, certain stressful life events may increase support if the threats are external rather than internal. Thus, with the occurrence of pregnancy and as levels of stress during pregnancy are altered, changes in social support would be expected.

1.2.6.2 Stability of Self-esteem

In general, individuals with low self-esteem have unstable self-concepts. Although self-concept among pregnant ado-

lescents was, in one study, reported to be stable (Leonard, 1983), further investigation is required to confirm this isolated finding.

In a study of self-concept among non-pregnant teenagers the correlation coefficient of two measures of self-concept taken over a two-year period was .53 while test-retest reliability of the tool being used was $r=.68$. Where shifts in self-concept did occur, they were predominantly among the group with initial negative self-concept (Engel, 1958). Thus, while substantial shifts in self-concept over a period of several months are not common, it is conceivable, especially among a group such as low-income pregnant adolescents characterized by low self-esteem that such shifts would occur. The level at which shifts in self-esteem coincide with changes in self-concept is not clear.

1.2.6.3 Stability of Pregnancy-related Attitudes

In a study conducted by Leonard (1983) a significant ($p<.05$) change over the course of pregnancy in attitudes toward pregnancy, the baby, and smoking, as a result of a self-enhancement program for pregnant adolescents was reported. In a separate investigation (Grimm & Venet, 1966) a considerable degree of consistency over a five month period during pregnancy was reported for worry about baby ($r=.70$) and desire for pregnancy ($r=.81$). This limited evidence suggests that pregnancy-related attitudes may be expected to change in response to an effective intervention.

1.3 PURPOSE OF THE STUDY

1. To determine whether there is improvement in support satisfaction, self-esteem, and attitudes towards pregnancy over the study period among pregnant adolescents, exposed to two different types of prenatal services.
2. To determine whether support satisfaction is related to levels of self-esteem and pregnancy-related attitudes among pregnant adolescents in this study.
3. To describe observed levels and fluctuation in social support, self-esteem, and pregnancy-related attitudes in relation to cultural differences, type of prenatal services, personal characteristics, and life situations of the study participants.

1.4 RESEARCH QUESTIONS

The following research questions were formulated based on a review of the literature and the theoretical framework described in Chapter 3:

1. Will the level of **support satisfaction** among pregnant adolescents in both groups increase during the study period?
2. Will the level of **support need** among pregnant adolescents in both groups decrease during the study period?

3. Will the level of **self-esteem** among pregnant adolescents in both groups increase during the study period?
4. Will **pregnancy-related attitudes** among pregnant adolescents in both groups shift during the study period?
5. Will support satisfaction be
 - a) positively related to self-esteem
 - b) positively related to pregnancy-related attitudes
 - c) inversely related to support needin both groups of pregnant adolescents?

1.5 DESIGN OF THE STUDY

This was an exploratory study utilizing measures of social support, self-esteem, and pregnancy-related attitudes during the second and third trimester of pregnancy and approximately one month after delivery, supplemented with background information for each participant.

The initial study groups consisted of 14 residents at Lindenvue residence who registered during the summer and fall of 1986 (Group A) and 4 patients at Mount Carmel Clinic who began receiving care during the fall of 1986 (Group B). Participants were between 4.5 and 7.5 months into their pregnancy when they entered the study.

Data were collected from both groups during two to five interviews conducted at monthly intervals. Each participant was followed until approximately two weeks prior to delivery and case studies were developed from data obtained using standardized instruments which were supplemented with qualitative data from field observations and informal interviews.

The data analysis combines two approaches. The first is an assessment of the findings from case studies in relation to the research questions. The second is a more descriptive analysis of typical cases, from which possible explanations of the above findings emerged and new questions were derived.

Objectivity was maximized by bringing extensive information to bear on each point of interpretation and collaborating with a team to check on bias. Basic human attributes which may be derived from this type of research may be later assessed by future research in terms of applicability to other groups and settings (Eisner, 1985).

1.6 DESCRIPTION OF PRENATAL SERVICES

Under the auspices of the Salvation Army, **Lindenview Residence** provides educational guidance, health services, personal counseling, recreational and social activities primarily to pregnant teenagers and young mothers. The residence has a bed capacity of 17. Services are delivered by a staff

of teachers, volunteers, a social worker, nurse, and, on an occasional basis, an obstetrician-gynecologist and home economist.

Mount Carmel Clinic offers similar services to pregnant teenagers who drop in rather than live in. While the range of in-house medical services offered at Mount Carmel is more extensive than at Lindenview, medical services are easily accessible to Lindenview residents. The degree of exposure to services and participation in programs at Mount Carmel and at Lindenview varies considerably. Program components which may contribute to social support are as follows:

1. Instruction in financial, nutritional, and health aspects of pregnancy and childbirth. In addition, academic courses are taught at Lindenview.
2. Socio-emotional and instrumental support provided by the staff in the form of personal counseling and provision of health care.
3. Group activities include recreational, social, and educational activities as well as sharing of meals and snacks.
4. Personal sharing of information and socio-emotional support among young women who are experiencing similar circumstances relating to adolescence and pregnancy

The latter two components are provided at Mount Carmel Clinic only on a limited basis.

1.7 ASSUMPTION

A basic assumption in this study is that the phenomena being investigated are based on complex inter-relationships and multiple realities versus singular truths. Context-free generalizations about the social realities being investigated would therefore not be very meaningful.

The opportunities for social support within the settings of this study are assumed to differ from the situations among many pregnant adolescents wherein these young females become isolated from both family and friends (Furstenberg, 1976) and delay in seeking prenatal care.

1.8 LIMITATIONS OF THE STUDY

Due to the factors mentioned above and the small number of participants, which would have greatly restricted the power of statistical testing, an experimental design was not followed. This limitation is somewhat compensated for by the use of qualitative data in the presentation of case studies to answer the research questions. Factors which have a known effect on the study variables were recorded and taken into account in the analysis. These factors include age, ethnic background, education, decision whether to keep

the child or relinquish for adoption, and background information including living arrangements, family relationships, and major life events.

Due to the practical difficulties of locating pregnant adolescents in the community and eliciting their co-operation within the time restraints of the study, the number of Group B participants who completed the study was insufficient to allow conclusions to be drawn regarding this group.

Within Group A, the observations of changes in the variables between interviews were confounded by the variations among participants in stage of pregnancy at each interview. At first and second interviews, stage of pregnancy ranged from 4 months to 8.5 months, while participants at the third or fourth interview were all in their third trimester of pregnancy. Thus, for example, positive trends identified at later interviews may represent natural improvements occurring during the latter stages of pregnancy, regardless of living situation and personal factors. There was considerable variation in these trends, however, among variables and among participants, which warranted further explanation.

The group means in particular, therefore, provide almost no meaningful information regarding changes in social support, self-esteem, and pregnancy-related attitudes. Rather, it is the case studies which provide the most accurate and comprehensive information regarding individual participants,

and from which meaningful observations are drawn. There are some limitations, however, in this regard. Firstly, the researcher, in several cases, had no personal contact with participants. Although this situation served to reduce the potential for biasing the participants responses, which may have occurred if the researcher unintentionally conveyed to participants her expectations for the study results. It also made the task of interpreting the findings more difficult. Secondly, since nearly half of the participants were interviewed only two or three times, it became even more difficult to gain insight into their personal situations. These limitations also decreased the potential for successive stages of inquiry which are useful in case studies.

There were several clear indications in the data based on responses on the three major instruments and responses to questions asked of participants at the final interview that, for the most part, participants answered the questionnaires carefully and honestly and comprehended them well. There were only a few isolated examples, which were noted in the case studies, where there were indications that responses may have been inaccurate due to respondent fatigue, lack of co-operation, or poor comprehension of the instruments.

There was some indication of a positive bias due to the tendency for respondents to give socially desirable responses. One hundred percent of attitude towards baby scores were in the high range which may be the strongest indication

of a social desirability bias. Furthermore, some participants may have developed more positive feelings about themselves, their pregnancy, and perceptions of support, due to the individual attention they received from interviewers while participating in the study. Eighty percent of attitude towards pregnancy scores were in the high range.

Responses to the self-esteem questionnaire were weighted heavily towards moderate to high scores, but this may have been due to the failure of the instrument to measure aspects of self-esteem, such as perception of physical attractiveness, which would be expected to be lower among some pregnant adolescents and to decrease during pregnancy.

There may also have been a tendency for participants to give responses regarding social support, which would reflect well on the agency they are associated with. Several participants did not hesitate to indicate Lindenview staff as sources of negative interactions, however, and scores for support satisfaction and network size were more evenly distributed over the scoring range with a majority of scores in the moderate range.

A final limitation is that the personal biases of the investigator may have been unintentionally introduced in the interpretation of the data.

1.9 DELIMITATIONS

The study participants are a select group of individuals. Generalizations to other groups of pregnant teenagers are merely suggestive.

The overall effectiveness of any particular arrangement for prenatal care was not adequately evaluated in this study.

The results do not provide hard evidence of whether or not improvements in self-esteem, pregnancy-related attitudes or social support contribute to actual change in health behaviors and pregnancy outcomes among this group of adolescents. Extensive research utilizing these variables and measures of health has, however, demonstrated the importance of these factors in contributing to health outcomes. This evidence and other relevant literature is reviewed in the next chapter.

Chapter II
REVIEW OF THE LITERATURE

2.1 THE THEORETICAL MODEL

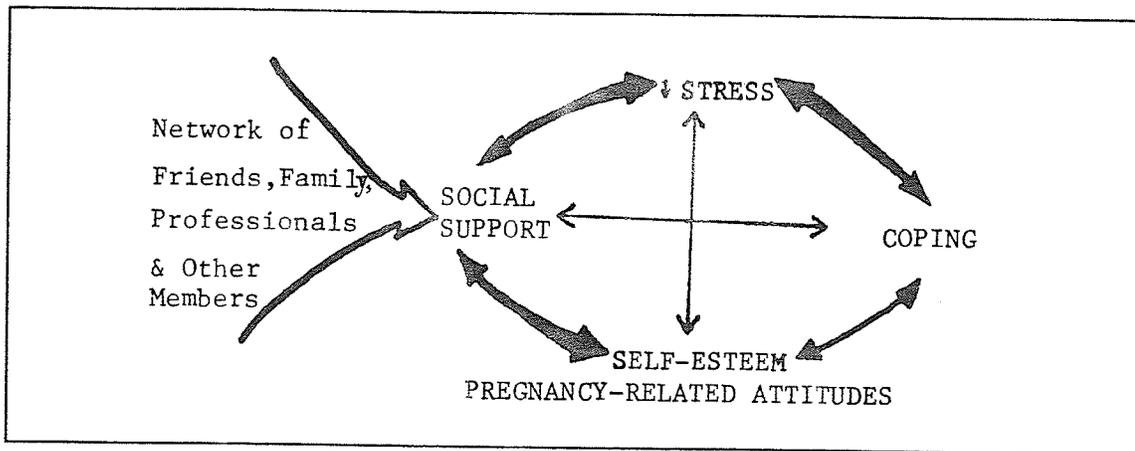


Figure 1: Social Support/ Additional Psychosocial Variables

The model designated in Figure 1 was formulated under the assumption that the stress-buffering process originates with the experience of an accumulation of stressful life events resulting in lowering of self-esteem, negative attitudes towards pregnancy, a possible decrease in social support, and a challenge to coping skills. Pregnant adolescents are likely to be in such a position due to the accumulation of life events which are common during adolescence, particular-

ly among those adolescents in lower socio-economic groups (Gad & Johnson, 1980). Pregnancy and the possible limitations of environmental and personal resources associated with low socio-economic status are additional stressors. This assumption is in accordance with the literature in which characteristics of pregnant adolescents have been examined (Baldwin & Cain, 1980; Coddington, 1979; Colletta et al., 1981; Furstenberg, 1976).

Several studies have shown that life stress scores based on undesirable life events are correlated most strongly with psychiatric symptoms such as depression, anxiety, and distress. Scores based on positive or desirable events, the balance of positive and negative events, or total change scores demonstrate relatively weak or, in some cases, non-significant associations with psychiatric symptoms (Cohen & Hoberman, 1983; Mueller, Edwards, & Yarvis, 1977; Vinokur & Selzer, 1975). Within a population of young adolescents, negative life events scores were found to be significantly correlated with perceptions of health status and personal adjustment (Gad & Johnson, 1980).

The model predicts that social support provides resources for coping and minimization of stress which will result in the elevation of self-esteem. With improvement in overall well-being, more positive attitudes toward pregnancy may develop. A logical assumption which follows is that these positive outcomes will impact on health behaviors and physi-

cal health. Studies based on the health belief model lend support to the hypothesis that health beliefs in combination with psychosocial variables will predict the likelihood of engaging in preventive health behaviors and sick-role behaviors (Gochman & Saucier, 1982; Janz & Becker, 1984).

2.2 SOCIAL SUPPORT AND HEALTH

The beneficial effects of social support on health-related behaviors and health are clearly documented in the literature (Cohen & Syme, 1985). Although several possible mechanisms have been suggested (Thoits, 1982), the processes through which social support affects health are poorly understood.

Early studies in the area of social support and health used general indicators of social support such as marital status and social ties (Berkman & Syme, 1979), family interaction and spousal demonstrations of love (Medalie & Goldbourt, 1976). These studies found that social support was negatively associated with morbidity and mortality rates. These associations were independent of the effects of risk factors such as smoking and lack of exercise. Subsequently, researchers have developed and validated more sophisticated tools to measure specific constructs (Barrera, Sandler, & Ramsey, 1981; Procidano & Heller, 1983; Turner et al., 1983). It was subsequently discovered that various types of social support have distinct effects on physical as well as

mental health status or well-being (Williams, Ware, & Donald, 1981; Dean & Lin, 1977; Henderson, Byrne, Duncan-Jones, Scott, & Adcock, 1983; Turner et al., 1983). Distinctions between socio-emotional and instrumental types of social support have been most evident (Thoits, 1982). In Israel's (1981) review of the literature, she concluded that qualitative, affective aspects of social support are most important in predicting effects on health and well-being. Barrera (1981), using a multi-dimensional measure of support, discovered that perceived satisfaction with support among pregnant adolescents was significantly correlated with total symptomatology ($r = -.49$; $p < .001$). Items found on the symptomatology scale included depression, anxiety and sleep problems.

Exposure to psychosocial stressors may be associated with an increase in general susceptibility to disease, which may be alleviated by social support (Bloom, 1979; Cassel, 1974; Dohrenwend & Dohrenwend, 1978; Eckenrode & Gore, 1981). Social support may act as a buffer against the harmful effects of stress and may have relatively less impact on health when stress is low. This is commonly referred to as the buffering hypothesis (Cobb, 1976; Dean & Lin, 1977). Considerable evidence has been accumulated supporting the buffering hypothesis as it pertains to physical and mental health (Cobb, 1976; Cohen & Hoberman, 1983; DeAraujo et al, 1973; Dean & Lin, 1977; Dressler, 1978; Gore, 1978; Hamburg & Killilea, 1979).

Nuckholls and colleagues (1972) developed a measure of "psycho-social assets" during pregnancy which included fourteen items and yielded a subjective rating of social support provided by family and friends, combined with measures of self-esteem and attitude towards pregnancy. The tool was not designed to measure the independent effects of social support. When social support was measured in combination with other psychosocial assets, however, pregnant women with low scores were three times more likely to experience pregnancy complications than were women with high scores.

Studies using psychological symptoms as the dependent variables and perceptions of available support as opposed to quantitative measures of support as the independent variables have produced results which are generally consistent with the buffering hypothesis (Andrews et al., 1978; Henderson et al., 1980; Wilcox, 1981). Studies involving pregnant women, however, have yielded inconsistent results.

In one prenatal study (Norbeck & Tildon, 1983) although life stress accounted for 21.4 percent of variance in emotional disequilibrium and social support accounted for 6.5 percent of variance, the interaction effect was not significant. Significant effects were found for the interaction of life stress and tangible support when pregnancy complications were entered as the outcome variable. The contribution to explained variance was, however, very small. The poor significance of these results may be attributed to the

characteristics of the sample, however, as these subjects were in their late twenties and thirties and were primarily from middle-class backgrounds.

An additional hypothesis, referred to as the direct effects hypothesis suggests that social support has a cumulative enhancing effect regardless of level of stress (Cohen & Syme, 1985). There is some support for this hypothesis, particularly when the indicator of social support used is a measure of integration in social networks (Andrews et al., 1978; Turner et al., 1983; Williams, Ware, & Donald, 1981).

The direct effect hypothesis does not, however, discount the buffering hypothesis. In fact, recent research provides evidence for both hypotheses (Cohen & Syme, 1985; Gore, 1978; Henderson et al., 1980).

An extensive investigation using a measure of perceived availability of support revealed that distinctions may be made between the effects of various types of social support and the two support mechanisms on physical and psychological symptomatology (Cohen & Hoberman, 1983). Using step-wise regression analysis with life stress and support first entered in the equation, the interaction of these two variables accounted for an additional 6.6% of depressive symptom variance ($p < .02$) and 14.7% of physical symptom variance. When the same process of analysis was followed using each of

three support subscales, significance was reached in the case of appraisal, self-esteem and belonging support subscales with depression as the dependent variable. With physical symptoms as the dependent variable, there were significant interactions in the case of tangible, belonging, and self-esteem subscales. In total, the variables entered into the regression accounted for 30% of variance in physical symptoms ($p < .001$) and 46% of variance in depression ($p < .001$). Significant main effects were found for measures of support and the three subscales on measures of depression. In this particular study, however, social support alone did not have a significant effect on physical health problems.

Distinctions according to sources of support have been made. For example, it was found (Procidano and Heller, 1983) that university students' perceived social support from family was more strongly related to symptoms of distress and psychopathology than was perceived social support from friends. Perceived social support from friends was more closely related to social competence than was perceived social support from family. Conflicting results were found in another study (Turner et al., 1983) of discharged psychiatric patients, in which psychiatric symptoms were more strongly associated with support from friends ($r = -.40; p < .01$) than with family support ($r = -.26; p < .01$). One possible explanation for these discrepancies is, in accordance with

Pearlin's (1985) view that distinctly different supports are required for different types of problems and also over time as a given problem passes through stages and transformations. In addition, it has been suggested (Cohen & Hoberman, 1983; Kahn & Antonucci, 1980) that the kinds of social support we require may change over the life cycle, perhaps reflecting changes in the type of stressors we encounter over a lifetime.

There is an additional body of research which has been useful in identifying possible mechanisms through which social support affects health. This research involves the relationship of social support with self-esteem and coping.

2.3 SOCIAL SUPPORT AND SELF-ESTEEM

In a review of the social support literature (Hamburg & Killilea, 1979), it was stated that significant others, by conveying continued caring and respect for a distressed person, can affirm that person's self-concept and sense of worth. In another report, there was agreement that self-esteem is, in part, a function of interaction with others, and it was demonstrated that friends support and family support were significantly ($p < .001$) but not highly correlated with self-esteem (Jessor and Jessor, 1977). More specifically, it has been explained (Wills, 1983) that feelings of being accepted and valued or unconditional positive regard within

the context of intimate interaction contributes to self-esteem enhancement.

2.4 SOCIAL SUPPORT AND COPING

It has been hypothesized that social support facilitates the development of appropriate coping strategies for handling stress and illness (Gottlieb & Green, 1985) which may occur through modeling the behaviors of others, a common practice among adolescents (National Institute of Health, 1977; Sherif & Sherif, 1964). Taylor (1983) has shown that women who must cope with breast cancer look to other women who have overcome this problem as models for coping.

Coping responses may reduce the experience of stress associated with pregnancy and other stressful life events. In fact, coping appears to be a key mediating factor in the stress-buffering process. Both support systems and self-esteem have been indicated as correlates of coping style and they may, in fact, be regarded as coping resources which contribute to the stress-buffering process (Pearlin & Lieberman, 1977; Rosenberg, 1965; Roskies & Lazarus, 1980; Zeller, Smith, & Long, 1969). Coping, either directly or indirectly by relieving stress may lead to improvements in self-esteem as well as pregnancy-related attitudes through a feedback process. For example, coping may contribute to increased self-esteem and increased self-esteem may facilitate coping.

Dressler (1978) has identified specific types of coping responses, particularly active coping responses such as seeking assistance from others, which are most effective in reducing stress and contributing to self-esteem. Inter-relationships between active coping and self-esteem are analogous to the mechanisms discussed by Bandura (1977) by which expectations of self-efficacy or the belief in one's own effectiveness in performing behaviors is reinforced by repeated success in performing these behaviors and is a motivating force contributing to subsequent attempts to perform similar behaviors.

Pearlin and Schooler's (1978) investigation of the coping process revealed that whether or not strains experienced by individuals in marital or parental roles leads to emotional distress depends to a large extent on their coping responses to the strains. Coping responses were more important in blocking stress than were resources such as self-esteem, this difference being reflected by correlation coefficients of .47 and .15, respectively.

With regard to the benefits of positive attitudes towards pregnancy on health and well-being, published reports in this area of research are lacking. In one study (Heinstein, 1980), however, women who expressed positive attitudes towards pregnancy experienced fewer fears and physical complaints during pregnancy.

2.5 UNDERLYING COGNITIVE PROCESSES

Each of the linkages in the process of stress-buffering or coping assumes that there are underlying cognitive processes. This notion coincides with Lazarus' (Folkman, Schaefer, & Lazarus, 1981) model of cognitive processes which suggests that the ways people think about a stressful situation affects how they respond emotionally and how they cope. He refers to three basic types of stress appraisal, as follows:

1. Primary - Appraisal of the significance of one's encounter to well-being
2. Secondary - Appraisal of one's coping resources and options
3. Re-appraisal - Appraisal of new information after internal or environmental changes have been made

Lazarus (1971) has referred to "defensive re-appraisal" whereby the harmful significance of an event is distorted and the event is misjudged as benign or neutral.

This manner of regarding stress appraisal partially explains the reciprocal nature of the relationships between variables depicted in the theoretical model in Figure 1.

2.6 SOME BEHAVIORAL IMPLICATIONS

With regard to smoking and nutrition behaviors, the present view is that attitudes or beliefs and behaviors interact in complex ways and that situational factors as well as factors in a person's actual and perceived environment are equally important determinants of health behaviors (Swanson, 1972).

Fishbein and Ajzen (1975) put forth a theory of behavioral intentions which has gained considerable recognition and support in the social psychology literature. These authors define behavior determinants in terms of the relative influence of both personal attitudes and social norms. An attitude towards performing a behavior is seen as a function of the individual's perception of the consequences of the behavior and his or her evaluation of these consequences. The social norm component is an individual's perception of what most people who are important to him or her think with regard to whether a specified behavior should be performed. The two components vary in relative degree of importance depending on the personality characteristics of the individual, but have both proven to be strong predictors of behavior change.

The influences on adolescent behavior which may be addressed to arrive at successful behavior change have been categorized as the personal influence system and the environment influence system (Perry & Murray, 1982).

The personal influence system includes the behavioral skills that the adolescent possesses and the perceived environment which refers to the perception of the behaviors of reference persons such as parents and peers and the perception of their degree of approval or support of a particular behavior. Several authors have arrived at a consensus that adolescent behavior is affected by the perceived norms for acceptable behavior in the school (Jessor & Jessor, 1977; Perry & Murray, 1982).

The environment influence system affecting adolescent health behaviors involves the peer group as a modelling structure for acceptable behavior (National Institute of Health, 1977).

Thus, social support may affect health behaviors and associated measures of physical health either by creating social norms and opportunities for modelling of positive health behaviors, or by indirectly leading to behavior change via changes in perceived stress and self-esteem (Earp, Ory, & Strogatz, 1982; Levine & Green, 1982; Morisky et al., 1983) or possibly, in the case of pregnancy, through changes in pregnancy-related attitudes. Gottlieb and Green (1984) have recently examined the relationship between social networks and lifestyle health practices and their consequences, using path analysis and data from the National Survey of Personal Health Practices conducted by the National Center for Health Statistics in 1979. Pearson's correla-

tion coefficients indicated that social support was positively related to lifestyle health practices including smoking and weight maintenance ($p < .001$).

In terms of the effects of improved self-esteem and pregnancy-related attitudes on coping responses and health behaviors, according to self-consistency theory, people tend to behave and interpret their experience in ways that confirm self judgements or which lead to self-enhancement (Rosenberg, 1979). Relative to this theory, Jessor's (Jessor & Jessor, 1977) work with adolescents has demonstrated that adolescents with low self-esteem are more likely to engage in problem behaviors because there is less risk of losing self-esteem and the possibility of increasing self-esteem whereas those with higher self-esteem would not wish to threaten the favorable self-perception they already have.

It is conceivable that social support alters other health beliefs related to perceived benefits or perceived barriers to taking positive health actions. It is now fairly well documented that these health beliefs which are incorporated in the health belief model determine the likelihood of engaging in positive health behaviors (Janz & Becker, 1985).

2.7 SUMMARY

There is considerable evidence to support the relationship of social support with physical and mental health, both directly and indirectly by moderating the effects of life stress. The exact mechanism of the effects remains to be clarified. It is believed, however, that social support, as perceived by the individual, may increase the ability of the supported individual to cope with stress, to prevent the loss of self-esteem, and to develop or maintain favorable attitudes towards pregnancy. These resources may also contribute to the likelihood of engaging in positive health behaviors.

The underpinnings of the model relating to cognitive theory are complex. There is some degree of overlap in conception of the variables and reciprocity of their effects.

Different types and sources of social support may contribute, differentially to health outcomes. These distinctions may be explained, in part, by the relative ability of each type or source of support to meet the most frequent coping needs associated with common life events in a given population group.

Despite these intricacies, the literature bears strong evidence for the relationships between variables specified in the theoretical model explaining stress-buffering interactions.

Chapter III

METHODS

3.1 STUDY GROUPS

Group A consisted of fourteen pregnant adolescents at Lindenvue Residence who arrived during the summer and fall of 1986 and who had been in the residence for two to three weeks when they entered the study. **Group B** consisted of three pregnant adolescents who were receiving services offered by Mount Carmel Clinic. Participants were between 4.5 and 7.5 months advanced in their pregnancy when they entered the study. Other characteristics of the study groups are summarized at the beginning of Chapter 4.

3.2 OVERVIEW OF INSTRUMENTS

Three major data collection instruments were used to examine specific variables and qualitative methods were introduced to provide supplementary data for developing case studies (Copies of instruments and additional data collection forms are found in Appendix A).

1. The **Arizona Social Support Inventory Schedule** or ASSIS (Barrera et al., 1981) was used to measure support satisfaction, support need, and network charac-

teristics. Each of the questions on the schedule refers to the support which was received during the one-month period prior to the interview.

The support satisfaction score is the sum of ratings on three-point scales measuring level of satisfaction with support they received during the previous month, categorized according to six support functions (See Section 1.2.2). The support need score is derived in a similar manner from ratings of perceived need for the six support functions. Network size is the number of persons providing one or more support functions during the reference period. A measure of the number of persons who have been a source of negative interactions also was obtained, and from the network members who were sources of both support and negative interactions a "conflicted network" size was derived. A detailed explanation of how the indices were derived accompanies the sample instrument in Appendix A.

2. The **Self-esteem Scale**, initially developed by the Jessors (Jessor & Jessor, 1977) and subsequently modified (Schmid, 1981), provided a measure of self-concept based on self-ratings for nine aspects of the self. A weighted measure of self-esteem incorporates the participants' estimation of the importance of these aspects of self to their overall self-esteem.

Two subscores were obtained for each of the weighted and non-weighted measures. The competence subscores consisted of three items which measure general competence, decision-making ability and common sense. The four items comprising the social skills subscores relate to such skills as establishing good relationships with other males and females, getting along with others, and inter-personal sensitivity. Finally, a global self-esteem score was obtained, based on the response to a single item (Question 1) which asks the participant to rate overall satisfaction with self on a five-point scale. Below a neutral score of three would indicate some degree of dissatisfaction with self and scores greater than three would indicate some degree of satisfaction with self.

3. The **Feelings Form** (Leonard, 1983) was administered to measure pregnancy-related attitudes by summing ratings on twelve 7-point semantic differential scales with identical adjective pairs for each of the two concepts--pregnancy and baby.
4. The **General Perceptions Questionnaire**, consisting primarily of open-ended questions, was developed for this study and was administered at the final interview only. Participants were asked to explain in their own words their perceptions of the study, in general, and other perceptions related to the study variables.

5. **Background information** obtained from staff reports and interviewer notes included recent life events, relationships, personality, program participation, and other relevant information. More information of this nature was obtained for Group A participants than for Group B participants.
6. **Informal Field Observations** of the nature of interactions between staff and residents or among residents were recorded.

3.3 BACKGROUND AND RATIONALE FOR SELECTION OF INSTRUMENTS

3.3.1 Measuring Social Support

The lack of clarity in conceptualization and operationalization of social support (Dean & Lin, 1977) as well as the lack of adequate information to assess validity and reliability of instruments for measuring social support (Thoits, 1982) presented some difficulties in choosing an instrument.

Measurement of social support has ranged from indices of social integration and participation (Berkman & Syme, 1979) and measuring structural characteristics of networks (Mitchell & Trickett, 1980) to measurement of supportive behaviors (Barrera et al., 1981) and multi-dimensional measures (Henderson et al., 1982; Kahn & Antonucci, 1978, Schaefer et al., 1981). The multi-dimensional measures may include sources and degrees of support received from significant others and the structural properties of support systems (Barrera, 1981).

The appropriateness of an instrument for examining social support in the context of buffering against stress was an important consideration in choosing an instrument for the present study. Cohen and McKay (1984) have argued that social support acts as a buffer to the extent that support resources match coping requirements elicited by the stressors. Taking into consideration the stressors of pregnancy as well as adolescence, the anticipated social and economic deprivation of some of the participants, and the stigma of teenage pregnancy with the associated risk of the participants becoming socially isolated, it was reasonable to assume that the range of support needs of the study group would be extensive. A multi-dimensional measure which covers a wide range of support functions, ranging from tangible aid to emotional support was therefore judged to be most appropriate for this investigation.

In addition, according to the theory upon which this investigation is based, the buffering qualities of social support are cognitively mediated; that is, support operates by affecting one's interpretation of the stressor, knowledge of coping mechanisms, or self-esteem (Cohen & McKay, 1984). A measure of perception of support rather than a measure of size of network or frequency of supportive interactions would, therefore, be a more sensitive indicator of buffering effects. Liem and Liem (1978) have shown that the amount of help received is not always related to perceptions of being

supported. Barrerra and colleagues (1981) examined the relationship of frequency of supportive interactions with both network size and support satisfaction. While there was a small but significant correlation between frequency of supportive interactions and network size ($r=.24;p<.05$), support satisfaction was not significantly correlated with either of these two measures.

The Arizona Social Support Inventory Schedule (ASSIS) selected for use in this study provides a multi-dimensional measure of support satisfaction and related variables. A subjective index is obtained from individuals' self-reported level of satisfaction with the support they received.

The procedures for identifying networks members using the ASSIS differ from the procedures used in previous network studies which have typically asked subjects to list people who were "significant" or "important" to them (Mitchell & Trickett, 1980). By following procedures similar to those of Jones and Fisher (1978) the ASSIS is believed to be more effective in identifying individuals who clearly serve supportive functions. The procedures of Jones and Fisher (1978) involved the specification of supportive behaviors and asking subjects to name people who provided these supportive behaviors.

Measures such as the Provision of Social Relations Scale (Turner et al., 1983) address only the support provided by

family and friends while disregarding the possibility of support from professional care-givers. The ASSIS elicits the names of all individuals who may provide support, including teachers, counselors, and social workers. Participants also were asked to distinguish between support persons in agency settings and support persons in the home or in the community at large.

Taking into consideration that some behaviors provided by support persons may have unintended negative effects, the ASSIS was designed to measure the size of the conflicted network which includes members who, in addition to providing support, were sources of inter-personal conflict. This distinction was deemed to be relevant for measuring social support among pregnant adolescents, based on clinical experience and intensive interviews with pregnant adolescents which suggested that major sources of support could also constitute major sources of strain (Barrera et al., 1981).

The ASSIS is designed to measure support need, as perceived by the individual. This index appears to measure a unique variable which is positively correlated with symptomatology and which appears to be reflective of levels of stress or anxiety experienced by participants rather than social support, although support satisfaction and support need are negatively related to each other ($r. = -.55$) (Barrera, 1981).

Additional factors which were considered in the selection of this instrument were validity, reliability, multi-dimensionality, length of time required to complete, and suitability for the target group, considering their age, level of skill, and life situation.

The schedule took 10-15 minutes to administer and was, therefore, suitable for respondents with poor concentration levels. The content was designed to be relevant for pregnant adolescents.

Barrera (1982) conducted an initial study to assess the reliability and the concurrent validity of the ASSIS, relating it to the Inventory of Socially Supportive Behaviors (ISSB). An initial test of reliability was carried out by administering the test to 45 university students in two assessment sessions that were separated by at least two days. The interval was relatively brief as was necessary to prevent subjects from experiencing a substantial number of events during the test interval, yet the period was considered to be long enough to prevent the memory of the initial test responses from seriously influencing subjects' retest responses.

The mean for total network size in both interviews was just over ten members. The mean number of conflicted network members in both interviews was just over two. Test-retest correlations showed that total network size was a sta-

ble indicator ($r=.88, p < .001$). Additional analyses showed that a mean of 73.87% of the network members named in either the test or the retest interviews were named in both assessments. Conflicted network size had a significant but somewhat lower test-retest correlation coefficient ($r=.54, p < .001$).

The support satisfaction measure was skewed in favor of high satisfaction scores. A moderate test-retest correlation ($r=.69, p < .001$) was obtained. This coefficient is comparable to reliability scores for other measures of social support and may under-estimate the actual level of reliability due to the real change in stress associated with events which may have occurred between test and retest. Test-retest reliability for the support need measure was good ($r=.80, p < .001$). Low internal consistency for support satisfaction (.33) and moderate ratings for support need (.52) were initially obtained. More favorable ratings on both scores were obtained in subsequent testing of the tool with a group of patients from a health department clinic. The sample was similar to the study group of the present investigation, consisting of pregnant adolescents, the majority of whom attended an alternative high school and representing a variety of ethnic groups. Internal consistency of the support satisfaction scale with this group was .50 and for support need was .70.

Another finding was revealed by further analyses with the same group using the Inventory of Socially Supportive Behaviors; The presence of negative events appeared to diminish individuals' satisfaction with the support they received.

Concurrent validity was indicated by significant correlations of network size with total symptomatology ($r=.29$, $p < .01$) and with subscales of depression, and anxiety. Support satisfaction was significantly correlated with all of the symptom dimensions ($r=-.34$ to $-.49$, $p < .001$) with the exception of somatization which was not strongly related to any of the variables examined in the study. Support need also demonstrated significant positive correlations with all of the symptom dimensions ($r=.48$ to $r=.56$, $p < .001$) (Barrera, 1981).

3.3.2 Measuring Self-Esteem

Self-esteem measures based on self-ratings on a set of socially desirable characteristics, summed to arrive at a final score have been used in the past. For such methods to be effective, the following two assumptions must hold (Schmid, 1981):

1. Each of the selected characteristics in the scale are universally desirable
2. Each of the characteristics are equally desirable, this is, they are of equal value to the individual's self-esteem.

There are problems with these assumptions and their implications-- for example, the implication that a strength in one area can compensate for a weakness in another area of the self-concept. The components of the self are believed to be organized in an hierarchical fashion and to have varying degrees of centrality (Epstein, 1973; French & Kahn, 1962; Rosenberg, 1962).

An approach was taken in the present study in an attempt to overcome these uncertainties. First of all, respondents refer to a 9-item scale covering the major components of the self. The scale begins with the instruction: "How would you describe yourself in terms of:..." Following each item is a five-category response set. For example, one question refers to "How well you are able to get along with other people?" The possible responses are: "Very well", "Pretty well", "Well", "Not too well", and "Not well at all". A total self-esteem score is derived by summing scores on these nine items. Finally, weightings of importance of each item are assigned by the individual to give an estimate of the impact of the descriptive components of the self on self-esteem. The weights of importance are elicited by a question which asks the individual to go back over the previous items to rate their importance to self-esteem on a scale of 1 to 3: (1) not very important (2) somewhat important (3) very important. The sum of the products of these scores multiplied by the scores on corresponding items in the first section of the instrument yields a total weighted score.

Correlations of the Self-esteem Scale with other measures of self-concept revealed a few systematic differences which support the validity of weighted measures of self-esteem (Schmid, 1981).

The scale was initially developed and used in the 1977 Problem Behavior in Youth Study (Jessor & Jessor, 1977). Improvements were made by reducing the number of items on the scale by half to establish a more unidimensional scale. Competence and social skills subscales were identified which measure related yet distinct aspects of self-esteem.

The properties of the self-esteem scale and its components were assessed with both a college sample and a high-school sample (Schmid, 1981).

Reliability of the scale for high-school females was .70 and homogeneity ratio was .21. Item-total correlations were acceptable with all items correlating with the total in the desired middle range. The properties of the three-item competence subscale and a four-item social skills subscale were acceptable (reliability of $r=.57$ and $r=.59$, respectively; homogeneity ratios of .30 and .27, respectively).

As a check of convergent validity, the correlation between the self-esteem scale and a Likert-type single-item scale assessing overall personal satisfaction for high-school females was .43. The two subscales and overall personal satisfaction were moderately correlated, although the

correlations were stronger for the social skills subscale ($r=.36$) than for the competence subscale ($r=.29$).

Further analyses indicated that self-esteem, as measured by the scale, was related to satisfaction with family and friends and with several areas of life. Self-esteem was related to conventional behaviors such as physical activity ($r=.23$; $p<.001$). Negative correlations were found between self-esteem and stress in the family life area ($r=-.21$; $p<.01$) but no significant relationship was found between self-esteem and stress from friendships. Additional negative correlations included $r= -.16$ ($p<.01$) for tolerance of deviance and a low correlation for drinking behavior ($r= -.145$; $p<.05$) but no significant correlations between self-esteem and other problem behaviors. The low correlations between self-esteem and behavior are not unusual, in view of the placement of self-esteem in the personality system which has a more distal effect on behavior than other levels of variables such as the perceived environment (Jessor & Jessor, 1977).

Analyses of relationships between self-esteem and selected variables of a motivational instigation structure, specifically stronger feeling of freedom of movement and values of independence, revealed that self-esteem has motivational elements toward attitude expectations and perceptions which are consistent with the self-concept or which are aimed at increasing positive regard.

In this study, difficulty in understanding the part of the instrument which was crucial in determining the weighted scores was a recurrent problem. When participants were asked to rate importance of each aspect of "self" to their overall self-esteem, some participants may have responded in terms of how important these items are, in general, with no reference to their self-esteem. It may be accurate to assume, however, that aspects of self which are important in general, are likely to be important aspects of self-esteem. There was poor correspondence between single-item global scores measuring overall satisfaction with self and total scores of self-esteem for individuals in this study, which suggests that the list of components of self found on the instrument did not include all the elements which are important to self-esteem among the study group. Examples of components which were not measured and which may relate to overall self-esteem include physical appearance and academic performance. Items relating to these components were found on the original self-esteem scale but were eliminated (Schmid, 1981) to improve scale properties (See previous section).

3.3.3 Pregnancy-Related Attitudes

The attitude of the pregnant adolescent toward pregnancy, and baby was determined by a semantic differential type instrument constructed by Leonard (1983). The semantic dif-

ferential is a method, originally developed by Osgood, Suci, and Tannenbaum (1957). The aim of the semantic differential is to elucidate connotations and latent meanings of concepts (Jenkins, 1966).

An attitude may be referred to as the evaluative dimension of the total semantic space (Heiser, 1957).

The technique involves responding to scales with two bi-polar dimensions of meaning and a broad continuum of responses between the poles rather than the pre-structured responses of multiple choice questions. An example of a semantic differential scale is:

Good ___:___:___:___:___:___:___ Bad
 7 6 5 4 3 2 1

Several scales representing different points in the semantic space were combined to give a measure of overall attitude toward the concepts "pregnancy" and "baby".

The validity of the method is not greatly affected by socially desirable responses. Scales representing factors other than the factors of interest are included to obscure the purpose of the measurement and to provide additional information regarding the meaning of the concept. The method is simple to administer and perform. It has been used with low literacy subjects to measure beliefs about diseases (Jenkins, 1966) and with pregnant women and adolescents to measure attitudes and beliefs about pregnancy (Green, 1979;

Leonard, 1982). Several reports support the validity of the semantic differential as a technique for attitude measurement (Heise, 1957). Tannenbaum (1956), for example, reported a test-retest reliability of $r=.87$ to $r=.93$ in a study which examined the attitudes of 135 subjects toward six concepts. Suci (1960) reported reasonable face validity and Osgood, Suci, and Tannenbaum (1957) claim that there is little reason to question the validity of the instrument on the basis of its general correspondence with findings expected from common sense.

The possible limitations of the semantic differential method relate to faking responses, the tendency to place marks in the middle position and of having to mark a concept on some rather meaningless scales (Sax, 1979).

The responses to the instruments in this study, however, indicated good dispersion of responses across the adjective scales and the respondents appeared to be making conscientious attempts to consider the meaning of the concepts.

Adjective pairs which may have been difficult to associate with the concepts were frequently scored as neutral, confirming observations from the pilot study which support the face validity of the instruments. Specifically, for the concept "baby", the adjective pair "successful-unsuccessful" was often scored as neutral, likely due to the association of success with the child's future, which would be difficult

to predict. Similarly, the adjective pair "perfect-imperfect" for baby was likely associated with outcome of delivery, which also would be difficult to predict, so was often scored as neutral. For both concepts, the adjective pair "awkward-graceful" was commonly given a neutral rating. This may be due to apparent difficulty in understanding the meaning of these adjectives.

The responses on the "negative-positive" scales showed a distribution which was comparable to the frequency distribution for responses on the "good-bad" scale. Furthermore, there was good correspondence between ratings on the Feelings Form and other findings. For example, ratings on the "friendly-unfriendly" scale often corresponded with reported number of friends in the participant's network and perceived ability to establish friendships.

There was a trend towards more neutral or extreme scores at the final interview, rather than scores that fell between the extremes, which may be a reflection of a fatigue factor.

In Greene's (1979) study of feelings during pregnancy in relation to pregnancy outcome, semantic differential factors which correlated with poor outcome and contributed to a predictive index were, according to concept: hard (pregnancy), cruel (childbirth), strong (baby).

Leonard (1983) constructed a scale to measure meaning, held by pregnant adolescents, for the following concepts:

self, pregnancy, the baby, and smoking. Initial measures were followed by a post-test after subjects had participated in a "self-enhancement" program.

The scale used in the present study is an adapted version of Leonard's scale. Identical sets of 12 adjectives follow each of the concepts "baby" and "pregnancy". (See Appendix A). These adjectives were selected by Leonard on the basis of their high loadings on evaluative factors as determined by extensive research (Osgood, Suci, & Tannenbaum, 1951) as well as their relevance to the concept (Leonard, 1983). In Leonard's study (1983) involving 30 subjects in each of an experimental and a control group there was a significant change ($p < .05$) in attitude toward pregnancy and the baby for the experimental group but not for the control group. There was no significant difference between subjects in the experimental and control group in adjusted post-test scores on attitude toward self, pregnancy, or baby.

3.3.4 Readability

Readability levels of the instruments were assessed using the SMOG index (McLaughlin, 1969) and did not exceed the Grade 7 reading level.

3.3.5 Qualitative Methods

The rationale for introducing qualitative methods in this investigation is:

1. To provide a basis for understanding the substantive significance of the quantitative findings (Filstead, 1979).
2. Triangulation of methods (Denzin, 1978) or bringing a variety of data and methods to bear on the same points will increase the validity of findings (Green & Gordon, 1982), namely the measures of social support and pregnancy-related attitudes, thus eliminating overdependence on a few quantified abstractions.
3. Explication of "wholes" rather than isolated entities focuses on context and history (Eisner, 1980, p. 135) and explains process v.s. outcome (Campbell, 1979).

3.4 PRELIMINARY PROCEDURES

3.4.1 Review and Pilot Testing of Instruments

All instruments and recording forms were reviewed by a panel of three judges to determine content validity, suitability of wording for Indian and Metis participants, and any unnecessary difficulties inherent in the instruments. Additional comments were elicited from faculty members involved in supervising the study. The following revisions were made in response to the comments and suggestions of the reviewers:

Feelings Form - The order of the adjectives on the semantic differential scale was reversed for the concept "baby" to eliminate bias due to response pattern.

ASSIS- Responses for two items were simplified slightly, and culturally appropriate wording was taken note of. For example, "borrow you" was to be used to replace "lend you" for participants from traditional Indian background.

Self-Esteem Scale- Wording was simplified. For example, "the same sex" was changed to "female". Response choices for the final question were made more consistent with the explanatory note prefacing the question. Specifically, the word "important" was used more consistently. This change was warranted on the basis of the pilot testing results. Both the original and revised form of the instrument are found in Appendix A.

The pilot testing was conducted by the researcher with five residents at Lindenvue. Interviewing procedures were followed as practiced in training sessions (see explanation in the next section). Participants were able to respond to the questions with very little difficulty, with the exception of the final question on the self-esteem scale, which was subsequently changed, as previously indicated. There was some occasional confusion with the alternating polarity of responses to the Feelings Form items. This was resolved by altering the method of administering the instrument; inter-

viewers were instructed to read aloud each response that the participant checked off to ascertain whether it was the intended response. The length of the interviews was shorter than expected, ranging from 10 to 15 minutes.

3.4.2 Interviewer Training

Orientation and training of volunteers involved two sessions, totalling eight hours. The first session involved an overview of the study, discussion of the sample group, instruments, and interviewing techniques, as well as organization and scheduling of data collection. Ways to respond to potential difficulties or questions were discussed. The initial session ended with the trainees engaging in practice interviews. A tape-recording of the practice interviews was subsequently reviewed by the researcher and feedback was provided at the second session. Between-person differences in interviewing technique were noted and suggestions for eliminating extreme variation were offered. The trainees attempted to make the appropriate adjustments in one final practice interview.

3.4.3 Initial Contacts

Staff persons at Lindenvue Residence or Mount Carmel Clinic contacted the researcher with the names of participants who had been told briefly about the study, using the "Description of Prenatal Support Study" sheet as a guide, and who

had signed consent forms (See Appendix A). Initial interviews with Group A participants were arranged by Lindenview staff while initial interviews with Group B participants were arranged by interviewers who telephoned the young women at their homes.

3.5 PROCEDURES FOR CONDUCTING INTERVIEWS

Group A participants were interviewed in private rooms in Lindenview residence and Group B participants were interviewed in a quiet place in their homes. The order in which the three instruments were administered at each interview was randomized to eliminate the possible bias due to respondent fatigue. The interviews were conducted at monthly intervals with final interviews conducted two to three weeks before the participants' delivery dates.

The instructions and items on the scales were initially read aloud and once the participants came to understand the instruments, they were able to fill the forms out more independently.

3.6 SCORING OF QUANTITATIVE DATA

The cut-off points for determining whether scores are high, moderate, or low were arrived at basically by dividing the range of possible scores into thirds and establishing the dividing points accordingly. In the case of network

size, the range of scores used was as observed from the data, and was again divided into thirds. For support satisfaction, the possible range of scores was considered to be 6 to 18 corresponding to the range of scores for support need. There were scores lower than 6 in one case when the support function columns on the ASSIS were left blank. However the designations appear to be appropriate in terms of dividing up the range which covers greater than ninety percent of the scores, and the middle scoring range contains greater than fifty percent of the scores. The scores for pregnancy-related attitudes ranged from 1-7 with 1-3 as negative, 4 as neutral, and 5-7 as positive, corresponding to the designations on the component semantic differential scales of the Feelings Form.

Division factors equal to the number of items on the instruments have been applied to the scores for pregnancy-related attitudes, as well as total scores and subscores for self-esteem.

The non-weighted self-esteem scores were derived from the sum of responses to items in Question 2 of the self-esteem scale. Weighted scores began with the sum of the products of items in Question 2 and corresponding items in Question 3. Suitable division factors are applied afterwards to arrive at more manageable numbers and also to facilitate comparison between total scores and subscores.

Scores will be referred to as low, moderate, or high, according to the criteria in Table 1

TABLE 1

Criteria for Classifying Scores as Low, Moderate, or High

	Low	Moderate	High
Support Satisfaction	6-9	10-13	14-18
Support Need	6-9	10-13	14-18
Network Size	0-4	5-10	11-15
Global Self-Esteem	1-2	3	4-5
Total Self-Esteem (weighted)*	1-4	5-10	11-15
Total Self-Esteem (non-weighted)*	1-2	2-3	4-5
Pregnancy-Related Attitudes	1-3 (Negative)	4 (Neutral)	5-7 (Positive)

** also applies to Competence and Social Skills subscores*

3.7 DATA ANALYSIS AND INTERPRETATION

The raw scores for each item on the three instruments were entered into a computer data file. Weighted and adjusted scores, frequencies, and means were generated using the Statistical Analysis System program. These results and additional qualitative information were reviewed for each participant to develop case studies.

A case study may be defined as an "intensive or complete examination of a facet, an issue, or perhaps the events of a

geographical setting over time" (Denny, 1978) or, more simply, "an explanation of an instance in action" (MacDonald & Walker, 1977, p. 181). Where there were discrepancies between quantitative and qualitative data regarding support networks, support satisfaction, and pregnancy-related attitudes, quantitative data or methods were often held suspect, given the inherent weaknesses of the methods (Campbell, 1979), the instruments, and factors affecting the responses (See Section 1.8). An attempt was made to explain discrepancies according to social-psychological theory in relation to personal life situation. Explanations given by subjects, themselves, of the social realities they encounter were considered. Data from various sources were thus integrated, as part of a process to arrive at "grounded theory" (Filstead, 1979). This process was both creative and inductive. Patterns were identified and new questions emerged which required further follow-up to arrive at final interpretations.

The interpretations of the data were then discussed jointly with the nurse, social worker, and administrator of Lindenview and the interviewers. Any misrepresentations or omissions that were identified were corrected.

Chapter IV

STUDY FINDINGS

From the initial thirteen participants in Group A and three participants in Group B, there were three drop-outs, leaving a final sample of eleven participants in Group A and two in Group B. Interviewers were unable to locate six referrals from Mount Carmel Clinic. At least ten other potential Group B participants refused to participate in the study when requested by the nurses at Mount Carmel Clinic. Some of the refusals were young native women who were described as very shy and others were concerned about the confidentiality of the pregnancy. This chapter includes presentation and discussion of the findings for the two groups.

The first two sections describe the two groups and provide some background information on the type of conditions that the native participants were exposed to on the reserves and relevant cultural beliefs and values. This background information is referred to later in relation to case studies which are presented in the subsequent section.

Each case study begins with relevant demographic and background information obtained from participants when the Recording Form (See Appendix A) was completed and from agency records. Additional background information from agency

records which is referenced in the text is found in Appendix B. A map showing the locations of the home communities of each participant is found in Appendix C. Findings for each variable under the headings of "social support", "self-esteem" and "pregnancy-related attitudes" are then explained, noting patterns of change between interviews. Relationships between variables and corresponding data from various sources are then discussed, followed by a brief summary.

The overall findings are first discussed in relation to the research questions. In the next section several aggregate profiles for certain clusters of case studies which are similar are presented. Profiles of Group B participants and study drop-outs are among these. Follow-up interviews are also summarized.

The chapter is completed with a discussion of some additional findings.

4.1 DESCRIPTION OF THE STUDY GROUPS

4.1.1 Demographics and Background Information

AGE

The mean age for both Group A and Group B participants was 17.5 years. Eight of the Group A participants and one Group B participant were in their late teens (16 to 17 years old). Three Group A participants were over 18 years old and the remaining Group B participant was 18 years of age.

STAGE OF PREGNANCY

The average stage of pregnancy and range at each interview are shown in Table 2

TABLE 2
Stage of Pregnancy

GROUP	Interview			
	<u>1ST</u>	<u>2ND</u>	<u>3RD</u>	<u>4TH</u>
A	6 (4.5-7.5)	7.2 (5.5-8.5)	7.8 (6.5-9.0)	8.3 (8.0-8.5)
B	4.5 (4.0-5.0)	5.5 (5.0-6.0)	7 (6.5-7.5)	8.3 (7.5-9.0)

Note 1. Figures in table are average number of months gestation.
Figures in parentheses are range of months gestation.

As shown in the table, the average months gestation was progressively higher at each interview, although the range was greater at the first three interviews than at the fourth interview. This was because for all participants who had four interviews, the fourth was the final interview for them. While participants who began the study early in their pregnancy had four interviews, others who began later in pregnancy had only two or three interviews.

The distribution of participants according to number of interviews was as shown in Table 3.

TABLE 3
Number of Interviews

GROUP	Number of Interviews			
	During Pregnancy			Follow-up
	2	3	4	
A	3	4	4	3
B	--	--	2	1

SOURCE OF REFERRAL (Group A)

The major source of referral to Lindenview was social workers from Child and Family Services (CAFS) or other health and social service agencies, including Pregnancy Distress Services, a pro-life group in a town outside of Winnipeg, and Mount Carmel Clinic. Of lesser prevalence were referrals from friends, physician, or a family member.

EDUCATION

Eight of the eleven participants in Group A had completed Grade 9 or 10 and the range for last grade completed was from Grade 7 to Grade 12. The mean was 9.4. For Group B, one participant had completed Grade 9 and the other had completed Grade 10.

SOURCE OF INCOME

All participants reported some financial assistance from Child and Family Services or welfare agencies. Eight of the eleven participants reported social assistance as their major source of income. Four participants reported family as a source of income and in three cases this was their major source of income. One participant in Group B reported no source of income and the second participant reported welfare as her major source and her boyfriend as a secondary source.

CULTURAL BACKGROUND

Identifiable cultural backgrounds were Indian, from Ojibway and Cree bands, and Metis. Six participants and both participants in Group B were non-native Canadians.

PLAN FOR THE CHILD

Eight of the participants in Group A were keeping their babies and the remaining three decided to relinquish. Both participants in Group B had decided to keep their babies.

PREVIOUS PREGNANCIES

None of the participants in either Group A or Group B had experienced a previous pregnancy.

PRENATAL CARE

All participants attended prenatal classes and were under the care of a physician. No other prenatal care programs were mentioned by the participants.

4.1.2 Group Means for Study Variables

The mean scores and subscores for the study variables by interview are presented for both Group A and Group B in Table 4

TABLE 4

Means for Study Variables
Group A (Gr. A) and Group B (Gr. B)

Social Support Variables	1st Interview		2nd Interview		3rd Interview		4th Interview		Follow-up	
	GR. A / GR. B (n=11) (n=2)		GR. A / GR. B (n=11) (n=2)		GR. A / GR. B (n=8) (n=2)		GR. A / GR. B (n=4) (n=2)		GR. A / GR. B (n=3) (n=1)	
Support Satisfaction	12.5	16.5	12.5	15.0	12.6	15.5	15.0	14.5	12.6	12.7
Support Need	13.5	15.5	13.4	15.5	12.0	15.0	11.8	14.0	12.3	16.0
Self-Esteem Variables										
Global Self-Esteem	3.5	4.0	3.6	4.0	3.4	3.5	4.0	3.5	4.3	5.0
Total Self-Esteem (non-weighted)	3.6	3.8	3.6	3.8	3.6	3.8	3.8	3.7	3.9	3.9
(weighted)	9.1	10.2	8.6	9.9	8.5	10.4	8.9	10.0	8.0	10.4
Social Skills Subscore (non-weighted)	3.8	3.8	3.7	3.8	3.8	4.0	4.0	3.9	3.8	3.8
(weighted)	8.9	9.4	7.8	8.5	8.1	9.6	9.6	9.8	7.0	9.5
Competence Subscore (non-weighted)	3.6	3.8	3.5	3.8	3.6	3.7	3.5	3.3	4.1	4.0
(weighted)	9.5	10.2	9.6	10.8	8.9	11.0	9.1	9.7	9.2	10.7
Pregnancy-Related Attitudes										
Attitude - Pregnancy	4.8	5.9	5.2	5.5	5.7	5.8	5.4	6.2	5.3	6.8
Attitude - Baby	5.8	6.5	5.9	6.2	6.2	6.4	6.1	6.5	6.1	6.9

4.1.3 Network Characteristics

Table 5 presents the average numbers of friends, family, and professionals making up the networks of participants in Group A and B for each interview.

TABLE 5
Network Characteristics

Network Members:	1st Interview		2nd Interview		3rd Interview		4th Interview		Follow-up	
	GR. A (n=11)	GR. B (n=2)	GR. A (n=11)	GR. B (n=2)	GR. A (n=8)	GR. B (n=2)	GR. A (n=4)	GR. B (n=2)	GR. A (n=3)	GR. B (n=1)
PROFESSIONALS										
Lindenview	0.8	--	0.5	--	1.5	--	1.3	--	0.7	--
Community	0.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0	N/A
FRIENDS										
Lindenview	0.7	--	0.8	--	0.3	--	0.3	--	1	--
Community (F)	1.6	2.5	1.3	1.0	1.4	1.5	0.0	3.0	1.7	3.0
(M)	0.8	1.5	0.7	1.0	1.1	1.5	0.5	1.5	1.3	2.0
Father of Child named	0.5	0.0	0.4	0.5	0.1	0.5	0.5	0.5	0.0	0.0
Negative Interactions	1.3	1.0	1.5	1.5	1.0	2.0	0.3	0.5	1.3	2.0
Conflicted Network	0.7	0.0	1.1	1.0	0.1	1.5	0.3	0.5	0.0	0.0
TOTALS										
Friends	3.1	4.0	2.8	4.0	2.9	4.0	2.8	4.5	1.7	7.0
Family	2.4	5.0	1.6	2.0	1.1	4.0	0.8	5.0	5.0	5.0
Professionals	1.4	0.0	0.7	0.0	1.5	0.0	1.3	0.5	0.0	0.0
Lindenview	1.5	--	1.3	--	1.8	--	1.5	--	1.7	--
Community & Family	5.4	9.0	3.7	6.0	3.5	8.0	3.3	10.0	5.0	12.0
Total Network Size	6.9	9.0	5.0	6.0	5.3	8.0	4.8	10.0	6.7	12.0

Note. (--) = not applicable because participants are not at Lindenview
(n) = number of participants

As indicated by the group means and later confirmed by the case studies, network size was, in most cases, in the low to moderate range of three to ten persons. The mean was six members, which was lower than the mean of ten members reported in the literature among pregnant teenagers in Arizona (Barrera, 1982). The largest network size was frequently reported at the first interview, reflecting a period during which community supports as well as supports at Lindenview were accessed by the participants. The lowest number of network members was usually reported at the second interview, reflecting a period of adjustment to a new living situation and breaking away from outside supports. This trend was observed even when the participants were at later stages of pregnancy and were being interviewed for the final time at the second interview. After the second interview, as friendships and relationships with professionals at Lindenview were established and some family supports or other community supports were maintained, network size increased. A slight decline occurred at the final interview, in some cases, which was most likely due to less socializing and, thus, less people who were named, primarily, as sources of support function F (Social Participation). Supports at one-month follow-up either remained constant or increased.

The pattern was identical for Group B participants, with the exception that Participant 2B's network increased rather than decreased at the final interview. The explanation for

the decline in network size at the second interview among Group B participants is more difficult to explain in terms of their life situation but may be related to change of residence which both participants had made shortly before the first interview.

Higher scores for network size were noted among younger participants who socialized frequently, and native participants, after they had been to their home communities. Although most participants had at least one professional, one family member, and friends, both at Lindenview and from the community in their networks, the largest proportion of network members were friends. A considerable number of friends were girlfriends in the community and were frequently reported as providing support function F (Social Participation). The next highest number of network members were family members, followed by professionals, which usually included the social worker at Lindenview for Group A participants. At the third and fourth interviews, the latter pattern was reversed, with professionals outnumbering family members. Thus, in several cases, professionals gradually became partial replacements for family supports, although in a few cases, the opposite occurred.

There was a trend towards a decreasing proportion of outside supports, including friends, family, and professionals, in relation to supports at Lindenview, over the study period. When this trend was observed, it was in most cases due

to a decreasing number of outside supports and, in some cases, an increased number of support persons at Lindenview contributed as well. Support from friends was more consistent over the study period and may be related to the consistently reported high need for social participation among participants.

Approximately one half of participants named the father of the child as a support person. Exceptions included native participants and one participant whose home was not in Winnipeg. The father was often listed as a provider of support function A (Personal Feelings) and C (Advice) and, in two cases, as a source of negative interactions. By contrast, the participants' own fathers, when listed, provided mostly tangible support.

Confirming Barrera's (1981) finding of no significant correlation between network size and support satisfaction, network size was not always consistent with support satisfaction in this study. For example, there was a tendency for network size to decrease at the second interview, while support satisfaction scores often remained constant or increased. This may indicate that the quality of support from whatever number of support persons is a more significant factor determining support satisfaction. Negative interactions may also have had an effect. All participants reported one or more negative interactions with either a friend, family member, or professional. Conflicted network, or num-

ber of network members who were a source of both support and negative interactions was, however, lower than the average reported in Barrera's study.

4.1.4 General Perceptions Questionnaire Findings

Six of the eleven participants in Group A and both of the participants in Group B met with the researcher for a final interview during which they were asked open-ended questions related to the study variables. A copy of the General Perceptions Questionnaire used in these interviews is found in Appendix A. The researcher was not able to conduct a final interview with several of the participants due to early deliveries, participants leaving the residence before their due date or unavailability of participants at the scheduled time of the interview. The results that were obtained are summarized below.

In response to the first item on the questionnaire, all participants expressed the opinion that support from other people is important during pregnancy. Two participants felt that support is very important. When asked why support is important for them, personally, and for other young women in their situation (Question 2), participants generally responded that having people to talk to for advice and to find out whether they are doing the right thing were important. Relating to support need during pregnancy, many responded that they simply couldn't do it alone. Other explanations of why support is important included:

"getting support to avoid frustration (or depression)"
"support in making decisions" (i.e. decision to give up child)"
"encouragement"
"knowing there are others in same position"
"someone to listen"
"companionship"/"friendship"
"advice about pregnancy and delivery"
"financial support"

In response to Question 3, most reported that the support they personally received during pregnancy was helpful, in the ways indicated by responses to Question 1 and 2. One participant indicated that it made her more relaxed and another participant in Group B reported that it made her feel better about herself and her situation.

In response to Question 4 regarding suggestions for services for pregnant teenagers, one participant indicated that she would like to see more residences like Lindenvue, but she would prefer that only pregnant teenagers be allowed to stay. Financial assistance was mentioned by one participant who indicated that Child and Family Services did not provide enough. Schools for pregnant teenagers in more areas of the city was another suggestion. One Group B participant suggested support groups and another suggested more advertising of existing services through such means as posters in buses. Several participants in Group A had no suggestions for additional services.

In response to Question 5, four participants indicated that, initially, their attitude towards pregnancy was positive, and subsequently it became more positive or, as in one case, remained the same. Another two participants whose attitudes were initially positive said they developed more negative attitudes as pregnancy progressed. One of these participants had experienced increasing homesickness.

Among the two participants whose attitude was initially negative or who perceived pregnancy as "scary", one eventually developed a more positive attitude, while in the case of the other participant, who had decided to relinquish her child, her initially negative attitude gradually became more negative.

Finally, responses to Question 6 indicated that participants felt that the information they provided was meaningful and represented their true feelings, although two persons indicated that the questions "sort of showed how they feel" and another indicated that some of the questions were "stupid", for example the question regarding perceived friendliness of baby.

4.1.5 Attempted Changes in Health Behaviors

All participants in Group A reported some attempt to change health behaviors. Seven of the eleven participants reported quitting drinking and three reported quitting

drugs. Six participants reported changing smoking habits; Three said that they quit smoking completely and three said that they cut down. Two participants were known to have continued to smoke and did not report making any changes. The remaining four who did not report a change in smoking habits may not have practiced these "problem behaviors" prior to pregnancy or may have continued pre-pregnancy smoking habits.

Seven participants indicated that they had attempted to make changes in their diet since becoming pregnant. Three said that they ate more regular meals, two said that they had cut down on junk food and ate more nutritious meals, two increased the amounts of food they ate, after being advised to do so, and four participants reported no dietary changes.

The two participants in Group B reported similar attempts to improve their diet and reduce negative health behaviors during pregnancy.

4.2 BACKGROUND INFORMATION -- INDIAN PARTICIPANTS

Some background on the conditions on the reserves and relevant cultural beliefs and values are outlined below. More distinguishing information about the region that each participant is from will be included in the case studies to follow.

A report submitted by the First Nations Confederacy (1985) provided the results of a survey which identified mental health concerns and perceived needs of the status Indians of Manitoba.

In the area of education, the report identified that the local standard of education on reserves is, in general, lower than in the outside community and only twenty percent of Indians living there completed a secondary education (Smith, 1981). A specific need for sex education curricula was identified. Related problems were a lack of social services, in general, no professional counseling for teenagers, no community involvement in family planning, the negative influence of television, and a high level of teenage pregnancy. Extra-marital birth rates were four times the national average (Smith, 1981), despite a lower average age at first marriage.

In the area of socio-economic status, a high cost of living and insufficient welfare payments were identified as problems leading to income levels well below the national average.

In traditional native culture, the family is the true strength of the community. In more traditional communities, less mental health problems were found. The present situation finds five times as many children as the national average living in foster homes. Nearly twenty percent of on-

reserve homes have two or more families living together. Dr. Rodgers, a cross-cultural psychiatrist with Medical Services, who has 23 years of experience working with Indians on reserves, explained that many young native women have children and pass the infants along to a childless couple or relatives. This is accepted practice within the native communities.

4.3 CASE STUDIES

4.3.1 Group A Participants

4.3.1.1 Participant 1A

When first interviewed, Participant 1A was 19 years old, engaged, had completed Grade 10, and was 7.5 months into her pregnancy. Following her aunt's advice, she appeared at Lindenvue with her mother, citing inadequate prenatal weight gain as the reason for seeking care at Lindenvue. She had previously moved from her parents' home and had been working as a waitress. She had experienced periods of depression earlier in her pregnancy and, two years prior to her pregnancy she had attempted suicide.

She was described by Lindenvue staff as being immature and unrealistic in making future plans. Although she planned to keep the child and marry the father, her relationship with the father was described by staff as being unstable. A poor relationship between the participant and the boyfriend's family also was reported.

The participant's own family had difficulty accepting the pregnancy. Her mother also had given birth to an illegitimate child which she had given up for adoption.

The participant did not receive any schooling at Lindenview, with the exception of prenatal classes. She reported that she had attempted to reduce smoking during pregnancy. She delivered a 6.5 pound infant.

Social Support

Network size was moderate, beginning with five members and increasing to six by the second (final) interview. Family members, her boyfriend, and the social worker at Lindenview were named as support persons.

Negative interactions with her boyfriend, his family, and her own family were reported.

Support satisfaction was low and declined from first to second interview. The participant was, however, moderately satisfied with Support Function A (Private Feelings) which refers to talking to people about personal and private feelings. She reported an exceptionally high need for support.

Self-Esteem

The global self-esteem score changed from low to moderate while the non-weighted total self-esteem score remained in the moderate range and the weighted self-esteem score remained in the high range, showing a slight decrease. The decline reflects the decline in the social skills subscore. Items making up the social skills subscore which were given low ratings on Question 2 on the Self-Esteem instrument, namely getting along with others and good relationships with other females, also were given low ratings of importance in Question 3. On the first interview the competence subscore was lower than the social skills subscore but this was reversed on the final interview, when the participant perceived herself as having greater self-reliance and decision-making ability. High ratings of importance of these items were maintained.

Pregnancy-Related Attitudes

Attitude towards pregnancy remained at the same high level from first to second interview. Attitude towards baby was in the high range initially, although lower than attitude towards pregnancy, and became more positive by the second interview.

Inter-relationships between Variables/Data from Various Sources

The ASSIS indicated that the support network of the participant did not include any members who were friends. This finding is supported by the agency reports of the participant's limited interaction with others. Low scores on satisfaction with social participation and on perceived ability to get along with others and establish good relationships with females are consistent with the above findings. While the agency did report that interaction increased slightly at the end of pregnancy, the period of improvement may not have been long enough to be reflected in the instrument scores, with the exception that pregnancy was considered to be more friendly at the final interview.

Less support from the boyfriend towards the end of pregnancy may explain the decline in support satisfaction in the absence of a similar decline in network size.

Negative interactions with boyfriend and family, reported on the ASSIS, were confirmed by agency reports.

Positive attitude toward pregnancy and baby may be related to older age of this participant and her plans to marry.

While the staff reported that the participant frequently skipped meals, the participant reported that she attempted to improve her eating habits. Her efforts toward dietary

improvement did not appear to be very successful as her prenatal weight gain was inadequate and she delivered an infant of below average birthweight.

In summary, the participant appears to be caught in a difficult emotional web, involving herself, her boyfriend, and her family, while experiencing difficulty establishing friendships with peers. Her stressful situation is reflected in her high need for support, and appears to have had a negative impact on self-esteem, particularly components of self-esteem related to social skills, and also is reflected by low support satisfaction. The benefits which may have been gained by support from a moderate-size network appear to have been counteracted by negative interactions with these members and associated stress levels.

More positive attitude toward baby and perception of higher personal competence noted at the end of the study give some indication of coping and preparedness for motherhood.

4.3.2 Participant 2A

This 17-year old participant was seven months into her pregnancy when she was first interviewed. She had come to Lindenview one month earlier after being told about the residence by a friend. Her decision to stay at the residence was influenced by her mother's concern about keeping the

pregnancy confidential, even from the girl's father. She came from a middle-class family and was reported to have been exposed to negative peer influence.

The participant reported that she attempted to improve the quality of her diet during pregnancy by eating less junk food and had quit drinking.

Following delivery, the participant relinquished the child, returned home, and planned to return to school. It was later reported that she had become engaged.

Social Support

There was no change in the participant's moderate-size network from first to second interview. The boyfriend who fathered the child provided all six support functions. Family members, social worker, and friends, from Lindenview and the community provided various support functions. Negative interactions with persons including her boyfriend who also provided support and others who provided no support were indicated at both interviews.

Support satisfaction was in the moderate range, yet higher than for most other participants, and increased slightly on the second interview. This improvement may be attributed to increased satisfaction with support function A (Personal Feelings) and C (Advice).

Support need, particularly need for support function A and C (as above) and F (Positive Feedback) was high, decreasing slightly from first to second interview.

Self-Esteem

Both global score and total score for self-esteem were initially in the moderate to high range and decreased to more moderate scores on the second interview. The decline may be attributed to lesser perceived ability to handle setbacks and make decisions which likely relate to her difficult decision to relinquish. Both of these items were rated as important to self-esteem.

Pregnancy-Related Attitudes

Attitude towards pregnancy was in the neutral range, which was lower than most other participants, and increased only slightly. Pregnancy was perceived as quite bad, slightly negative, and extremely foolish at the first interview, and changed to slightly bad, neither negative nor positive, and quite foolish at the second interview. A decrease in perceived friendliness of pregnancy also was noted in the second interview.

Attitude towards baby was, however, relatively more positive and, while decreasing somewhat by the last interview due to an increase in perceived awkwardness, remained in the positive range. These scores were lower than the majority of the participants.

Inter-relationships between Variables/
Data from Various Sources

Support from mother and boyfriend, as indicated by the ASSIS was confirmed by agency reports. Her boyfriend, and not her mother, however, was listed as someone to discuss personal feelings with and to turn to for advice.

The reported increase in support satisfaction corresponded with the decline in support need as expected. A high need for positive feedback corresponded with the participant's perception that the support most needed by young women during pregnancy is "to know people think you're doing the right thing".

The decline in self-esteem which was indicated by various sources may be evidence of the difficulty of adjusting to the decision to relinquish the child.

Negative attitude towards pregnancy may conceivably be related to the negativity of the participant's family's attitude regarding the pregnancy. The reported unfriendliness of pregnancy, indicated on the Feelings Form may be related to negative interactions with residents, as reported on the ASSIS. Although the participant reported during the final interview with the researcher that her attitude towards pregnancy had become progressively more negative, this was not confirmed by the Feelings Form. Perhaps the participant was making reference to a change which occurred earlier in her pregnancy, before the study began.

Her positive attitude towards the baby may have contributed to the difficulty that Participant 2A experienced in her decision to relinquish the child, exemplified by a perception of moderate ability to handle decisions and her expression of concern about "doing the right thing".

In summary, Participant 2A's boyfriend consistently provided a full range of support which was complemented by support from other network members. Participant 2A was clearly finding difficulty deciding whether or not to relinquish the child and was in need of support in the form of advice and positive feedback. While there was some indication of increased satisfaction with these areas of support, which may explain the corresponding decline in support need, self-esteem did not improve accordingly. Less positive attitudes towards pregnancy may be related to negative perceptions and interactions with family members and, furthermore, may reflect negative middle-class attitudes regarding adolescent pregnancy. Attitude towards baby was, by contrast, more positive.

4.3.2.1 Participant 3A

When she was referred to Lindenview by a social worker, this 16-year old girl with a Grade 7 education was on probation from the Manitoba Youth Centre. She was from an Ojib-

way reserve in Little Grand Rapids which is characterized by serious problems with alcohol abuse, depression, anxiety, truancy and violence, to name a few. She was five months into her pregnancy and had decided to keep her baby.

Participant 3A was the youngest of five children. Her parents were separated, her mother had a problem with alcoholism, and one of her siblings had suffered a violent death. Her boyfriend was in jail. Indications were given, by staff, that she and a friend had broken the law as a ploy to be taken to Winnipeg from the reserve where she had been staying with various relatives.

While at Lindenview, the participant appeared to be shy and inhibited, experienced periods of depression, and expressed a feeling of missing the reserve. She did not indicate any attempts to change her eating habits since becoming pregnant but reported that she had quit smoking.

The participant stayed in Winnipeg and participated in the "Moms and Babes" program at Lindenview following delivery. It was later reported that, after being refused by her family at Little Grand Rapids, she had gone to stay with an aunt in a neighboring reserve at Pauinguassi.

Social Support

At the first interview, Participant 3A identified a support network of two friends who provided support function F

(Social Participation) and E (Physical Assistance). Her father was said to have been in Winnipeg while she was pregnant but was not listed as a support person. Perceived need for support was high only for support function D (Positive Feedback). On the second and third interview, despite no support network during this period, support satisfaction and support need were both high. These findings could be indicative of respondent error due to fatigue. The interviewer had made a note of the apparent fatigue of the participant during these interviews. An alternative explanation would be poor comprehension of the instrument, given her Grade 7 education and the lower standard of education on the reserve (See Section 4.3).

At the final interview, there was a notable increase in network size to four members, including a staff member at Lindenview, a family member, and a friend from Lindenview. All support functions, with the exception of support function E (Physical Assistance) were provided by these members. Support satisfaction was high, and support need was slightly lower than at previous interviews.

At follow-up, support satisfaction was low and there was no change in support need and network size.

Self-Esteem

While a low score on the global self-esteem scale and moderate scores on the composite scales were indicated on

the first interview, scores increased on subsequent interviews. The majority of items in Question 2 were first given a moderate or neutral rating (3). On the second interview, "ability to get along with others" was moderate to high and in Question 3 was judged as very important to self-esteem. Items which were consistently perceived as not very important dealt with relationships with males, handling decisions, and common sense. These same items were, in most interviews, given a neutral rating (3) on Question 2. Competence subscores were lower than social skills subscores.

Pregnancy-related Attitudes

The pattern for attitude towards both pregnancy and baby was as follows: the lowest score on the first interview, an increase on the second and third interview, and a slight decrease on the final interview.

Pregnancy was perceived as increasingly important, healthy, friendly, and happy. At one-month follow-up pregnancy was perceived as even higher on the good-bad scale than it was during pregnancy.

Baby was perceived as increasingly more positive. On the final interview most items were given either an extreme score (7) or a neutral score (4). This tendency may, again, have been indicative of a fatigue or comprehension factor.

No change in these scores at follow-up was found.

Inter-relationships Between Variables/
Data from Various Sources

On the second and third interview when no network was reported, high levels of support satisfaction and self-esteem which included the item measuring perceived ability to get along with others were reported. Considering the participant's stressful situation and high need for support, these findings are contrary to the expected pattern. This could be an indication of a participant responding in a way that she feels is expected of her or, as indicated earlier, may be due to fatigue contributing to the tendency to choose responses that were last read for each question on the ASSIS. Her tendency to give non-committal or mid-range responses on the self-administered instruments may also be explained by poor comprehension of the instruments or cultural differences in interpreting the concepts.

On the final interview, striking improvements were apparent. Most noteworthy were the increased network size, improvement in self-esteem from the first interview, particularly the item regarding relationships with other females, and perception of pregnancy as extremely friendly. Perceived support need decreased accordingly. Agency staff reported that the participant did well in the setting, developed greater confidence and increased interaction with others. A tearful departure from Lindenvue following delivery, as well as several calls made to the residence from

the reserve where she had gone with the baby, are evidence of the social attachments she had developed at Lindenview.

The participant did not report any negative interactions while at Lindenview, although the agency had been informed of abusive interactions between the participant and her boyfriend, who was in jail, after she had threatened to end the relationship.

In summary, Participant 3A had a quite small support network. There were indications that her support network and support satisfaction decreased by the second interview but increased again by the final interview, and that support need followed the reverse pattern, although these findings were not clear. Inconsistencies in the findings may be attributed to difficulties in comprehension of items by the respondents, due to lower education or cultural differences in perceived meaning, and social desirability of the responses. Levels of self-esteem were moderate and showed improvement as pregnancy progressed. The scores improved in the area of social skills but not in the area of competency. Pregnancy-related attitudes, while initially quite negative, were higher on subsequent interviews. A decrease in support satisfaction was the only significant change noted at follow-up. The researcher was not made aware of any explanation for this latter finding but speculates that it could have been due to restricted social life imposed by the demands of

motherhood. On the whole, quite substantial improvements in the participant's situation were noticed.

4.3.2.2 Participant 5A

Participant 5A was 23 years of age and was at six months gestation when she came to Lindenview from a rural town outside of Winnipeg. A counselor with a pro-life group had referred her. She had a Grade 10 education.

Her family had been very protective and had difficulty accepting and dealing with the pregnancy. Her father had abused her sexually in the past and, at the time of her pregnancy, her father was scheduled to appear in court to face charges, only to have the date put forward. She returned home some weekends and experienced additional upsets such as her mother's announcement that she may pursue a divorce. She rarely signed out from Lindenview other than for these weekend visits. Staff at Lindenview described her as being very unrealistic, lacking in self-confidence, undecided, and easily influenced by others in decision-making.

The participant reported eating more nutritious foods, quitting drinking, and cutting down on smoking during pregnancy.

She delivered prematurely after the third interview. Her father had initially refused to take her back home following her delivery but later, after her doctor advised that she

was incapable of raising the child on her own, she was allowed to return to her parents' home.

Social Support

Initial reported network size was ten persons, increasing to thirteen at the final interview. Her support network consisted mostly of friends and later included several staff members at Lindenview. These members were frequently named as providing social interaction and positive feedback. Accordingly, satisfaction with these support functions was reported to be high.

The overall score for support satisfaction was initially low but increased to a moderate level on the last two interviews. Support need correspondingly decreased from a high score to a moderate score.

Only one negative interaction was reported, involving her father and occurring during the first month that the participant was registered at Lindenview.

Self-Esteem

Non-weighted and weighted total scores for self-esteem indicated an increase from first to third interview, within the moderate scoring range. The global score, however, indicated high self-esteem on the first interview and a low score on the third interview.

The non-weighted subscores both indicated an overall increase. Weighted subscores, however, demonstrated an increase in perceived competence but no overall increase for perceived social skills. Social skills subscores were generally higher than competence subscores with the exception of weighted scores at the final interview.

Pregnancy-Related Attitudes

Attitude towards both pregnancy and baby were originally positive, declining slightly to approach neutral scores on the second interview. Scores on the final interview were very positive and higher than earlier scores.

Examples of significant changes in individual items for pregnancy were from slightly unhealthy (following false labor pains) to extremely healthy on the final interview and from slightly bad/negative on second interview to extremely good/positive on the final interview. For baby, there was a marked change from slightly awkward/good/positive on the second interview to extremely awkward/good/positive on the third interview.

Inter-Relationships Between Variables/

Data from Various Sources

The pattern of relationships between variables was consistent with that which would be expected based on the theoretical model described in Chapter 2. Network size, support

satisfaction, self-esteem, and pregnancy-related attitudes each showed a distinct increase, while support need decreased. The only discrepancy was the decrease in the global self-esteem score. This finding could be indicative of the importance of some other aspect of self-esteem not included in the total self-esteem scale, such as body image, or could indicate a recording error--the participant may have intended to mark very satisfied instead of very dissatisfied at the final interview. The participant had missed the item entirely on another interview.

These positive perceptions may be explained by the fact that the participant had changed from a very stressful family situation, within which traumatic incidents had occurred in the past, to a more peaceful atmosphere where she sought support from a number of available support persons.

At the second interview, however, following a weekend visit to her home and reported false labor, measures of self-esteem and pregnancy-related attitudes demonstrated some deterioration. The response to items related to ability to handle set-backs and disappointments on the self-esteem scale was not well at all on the second interview, while significant improvements in these perceived abilities were indicated by final scores. The participant reported a moderate ability to handle decisions and rely on herself, which generally coincides with agency reports, although the participant appears to have slightly overestimated these abilities.

A significant increase in network size corresponded with increased perception of friendliness of pregnancy from neutral to extremely friendly, and the number of persons named as providers of social interaction doubled. However staff indicated that many of the persons she named as members of her support network must have been brief acquaintances with people she had met in a nearby coffee shop.

A report by agency staff of a negative relationship between the participant and her father was confirmed by the participant's reports of negative interactions. Another finding that may have relevance in this regard is that on the self-esteem scale, her perception of her relationships with males was ambivalent, and this item was classified as not important to self-esteem.

In summary, despite her stressful situation, the information collected for Participant 5A suggests overall improvement in all aspects examined, despite a slight but temporary decline in self-esteem and pregnancy-related attitudes on the second interview. This fluctuation may have represented an adjustment period and/or the effects of negative interactions on a weekend visit to her home.

4.3.2.3 Participant 7A

Participant 7A is a Metis girl who was referred to Lindenview by a Child and Family Services social worker. She

was 16 years old, 6.5 months into her pregnancy, had completed Grade 8, and was undecided about plans for the baby. Born in Red Lake, Ontario, she had been apprehended by Child and Family Services at age 6 and had been a victim of sexual, physical, and emotional abuse throughout her childhood (See Appendix B).

She reported quitting drugs and alcohol during pregnancy but continued to smoke.

She decided post-natally to relinquish the child. A few months later she was reported to have become pregnant again.

Social Support

On the first visit, despite a large reported network including several professional counselors both from Lindenview and from the community, as well as some friends in the community, the participant reported very little of support function A (Private Feelings). She did, however, report a considerable amount of support function D (Positive Feedback). Network size declined by one-half by the second interview, reflective of a period of recall the first half of which was spent at Lindenview and the second half during which she was reported "AWOL". She reported that all of her network members during this time were in the community and half of them were male. Negative interactions with two professionals at Lindenview and some support in the form of obtaining advice also were reported during this period. Net-

work size had again increased by the third interview. A past social worker (male) was later reported as a friend who provided all support functions as well as negative interactions.

Support satisfaction was high throughout, increasing gradually from first to third interview. Low satisfaction with social participation was noted, however, at the second interview.

Support need was initially high, but became considerably more moderate on the second and third interviews with need for support functions A (Private Feelings) and E (Physical Assistance) declining the most.

The reported negative interactions with staff at Lindenvue declined at the final interview. A few negative interactions with other acquaintances at Lindenvue and in the community were reported at each interview.

Self-Esteem

Global self-esteem was quite high and consistent throughout the study. Non-weighted total scores and subscores for self-esteem increased from first to second interview and then decreased below the initial moderate scores. The weighted scores were moderate at the first interview but showed no similar increase on the second interview. Thus, while self-image appeared to have improved somewhat by the

second interview, this was not reflected in weighted self-esteem scores, and all scores showed an overall decline by the third interview.

Items relating to relationships with others, in general, scored in the low range and weighted social skills subscores were particularly low, indicating that these areas were not perceived as important to self-esteem. Competence subscores, on the other hand, were moderately high and items such as self-reliance and common sense were perceived as very important to self-esteem.

Pregnancy-Related Attitudes

The participant maintained a quite positive attitude towards pregnancy, increasing slightly from first to second interview. Perception of pregnancy changed from slightly good/quite positive to extremely good/positive. Attitude towards baby scores were slightly higher and showed a decline at the second interview with several items scored as neutral, followed by a significant increase on the final interview.

Inter-relationships Between Variables/

Data from Various Sources

There were several indications from the data that despite having several support persons to socialize with and reporting high satisfaction with support, the participant had dif-

difficulties in this area. The indications include reported low satisfaction with support function F (Social Participation) on one occasion, reported negative interactions with friends both in the community and at Lindenview, and a low social skills subscore on the self-esteem scale. The fact that these aspects were not perceived as important to self-esteem may be an example of a compensatory attempt to maintain or improve self-esteem. This explanation could also account for the corresponding finding that items on the self-esteem scale that were given high scores on Question 2 were rated as being very important to self-esteem.

The role of her former social worker as a major support person was evident from the reports of support provided by him as well as the arrangement made by the participant to live with him and his girlfriend following delivery.

The observed relationship between support satisfaction and support need was inconsistent between interviews. On the final interview, scores were high for both support satisfaction and support need which may be attributed to the reversal from reported negative interactions with staff at Lindenview to reports of these individuals providing supports. Whereas, in view of the above, self-esteem would also be expected to possibly be higher on the final interview, it appeared to be somewhat lower. Scores on attitude towards both pregnancy and baby, however, increased from first to final interview.

Thus, the participant received support from a varied network and, in particular, from a friend who was formerly her social worker. The participant demonstrated high support satisfaction, improvements in pregnancy-related attitudes, and a decline in support need. Difficulties in social relationships were experienced and final self-esteem scores, while moderate to high, were somewhat lower than initial scores despite high ratings on perceived competence being maintained. A disruptive emotional past may partially explain the latter findings. The participant may have indicated higher ratings on perceived self-reliance and perceived importance of personal competence to compensate for threats to her self-esteem, or her underlying distrust of others.

4.3.2.4 Participant 8A

Six months into her pregnancy and one and a half months before the study began, Participant 8A was referred to Lindenview by a Child and Family Services worker after her parents' refusal to allow her to remain with them due to her pregnancy. She was, therefore, in the study only for the last month of her pregnancy. She was 16 years old and had completed Grade 9. Her home was in Portage la Prairie and she had relatives in Winnipeg.

She appeared to be an ambitious young woman, working to complete school credits while at Lindenview and planning to

pursue a nursing career. Her life skills, however, were reported to be somewhat limited, perhaps due to her lack of available time to learn them. She reported attempts to eat regular meals, consumed less alcohol and drugs and took iron supplements during pregnancy.

She relinquished her child and returned to live with her parents in Portage, who were described as being more open and supportive toward the end of pregnancy and were prepared to undergo family counseling to resolve existing family problems.

Social Support

Her support network initially consisting of eight members which included several family members, two girlfriends, and the father of her child, decreased to five members as reported at the second interview. These members provided all support functions. Some negative interactions were reported to have occurred with family and, on the first interview, with the father of the child. Staff persons were not named as sources of social support or negative interactions.

Support satisfaction was moderate and support need was high for both interviews. In general, affective support functions were perceived as more adequate than tangible support functions. Satisfaction with social participation increased over the study period.

Self-Esteem

Global self-esteem increased from low to high whereas total self-esteem remained constant at a moderate level and weighted total self-esteem decreased from high to moderate, as reflected in the weighted social skills subscore. Social skills subscores were higher than competence subscores.

Pregnancy-Related Attitudes

Pregnancy-related attitudes increased from low scores to high scores. Changes in individual items for attitude towards pregnancy were from quite bad/ neutral to slightly good/positive, from quite ugly/foolish to neutral, and from slightly sad to quite happy. Attitude towards baby was very positive, increasing slightly from first to second interview.

Inter-relationships Between Variables

Data from Various Sources

The noted decrease in Participant 8A's network size from first to second interview may be attributable to her change of location. Support satisfaction, however, remained at a moderate level. Her report of continued support from family on the ASSIS coincides with agency reports of her weekend trips home and support received from her mother. Another related finding was that need for support function A (Private Feelings) decreased.

High scores for support need including high need for social participation and material aid were confirmed by perceptions described during the final interview, indicating the participant's need for support to avoid frustration and for companionship and confirming her perceived need for material aid.

Improvement in global self-esteem, while weighted total self-esteem scores decreased, may indicate that some unmeasured aspect of the self, very important to self-esteem had increased. For example, her image of her school performance may have improved and may be important to self-esteem. Reports of her limited life skills correspond with her perceptions of low general competence.

Attitude towards pregnancy also became more positive, a finding which was consistent with the ratings on the good-bad and positive-negative scales but conflicted with the report on the final interview that attitude towards pregnancy was increasingly negative. The discrepancy may be due to the short reference period covered by the Feelings Form, whereas the participant may have referred to her entire pregnancy in her comments during the final interview. Her earlier negative attitude towards pregnancy may be explained by her being subjected to parental rejection and by the pregnancy's potential interference with reported career plans and her middle-class teenage lifestyle.

Participant 8A's pregnancy generally became quite positive, at least during the final two-month period which was examined. Satisfaction with support, provided mostly by family members, was moderate, as was self-esteem, and attitude towards pregnancy became more positive. Attitude towards baby was very positive and the participant's difficult decision to relinquish the child seemed appropriate, considering that she had a family to return to, who were prepared to work out their difficulties, a career to pursue, and she did not appear to have had the time to develop life skills appropriate to mothering.

4.3.2.5 Participant 9A

Participant 9A was a 19-year old girl of Cree origin who had been living in Leaf Rapids, a partially native community which is larger, less traditional, and has fewer serious problems in comparison with the reserve at Little Grand Rapids (See Participant 3A). She began the study in the seventh month of her pregnancy. She had completed Grade 12 and planned to keep her child.

The early teen years had been disruptive for Participant 9A. Her mother died, her father remarried, and her new step-mother beat her. She moved out and lived with her sister prior to coming to Lindenvue. She initially tried to conceal her pregnancy from her father, whom she was very close to.

During pregnancy she had attempted to quit smoking, drinking, and drug habits.

Her future plans were to work in an office position with an Indian band.

Social Support

Network size at the first interview was ten members, which declined to four by the second interview. This difference was attributable to her moving away from family and friends on the reserve. Support from friends was maintained throughout the study. No contact with the father of the child was reported. Support from individuals at Lindenview increased during her stay.

Support satisfaction was moderate, with scores lower on the second interview, as compared to the first and third interviews. In particular, satisfaction with support function A (Private Feelings) was low on the second interview and negative interactions were reported only at this interview. Satisfaction with social participation was low throughout the study.

Support need was high for first and second interview, becoming moderate by the final interview. In particular, need for support function A (Private Feelings) and D (Positive Feedback) decreased.

Self-Esteem

The global score for self-esteem was moderate or neutral (3) at each interview, as were the ratings for most items comprising the total scale. Both weighted and non-weighted total scores were slightly higher on first and third interviews as compared with the second interview. The lower non-weighted total score at the second interview was reflected in the competence subscore and the lower weighted total score is reflected in the social skills subscore. Social skills therefore became less important and perception of competence had decreased at the second interview. In general, items related to competence were most important to self-esteem and were rated higher than social skills in Question 2, and items related to social skills were less important and were rated as low on Question 2.

Pregnancy-Related Attitudes

Attitudes towards pregnancy were initially positive and became considerably more positive by the final interview. Specifically, there were improvements on the good-bad ratings and positive-negative ratings of pregnancy. On the second interview, pregnancy was perceived as foolish and sad, whereas on the final interview it was perceived as wise and happy.

Scores on attitude towards baby all were relatively high, although the score on the second interview was below that of

the first interview. The score on the final interview indicated a very positive attitude towards baby.

Inter-Relationships between Variables/

Data from Various Sources

On the second interview, there were several related findings. The participant's network size decreased by more than half, scores for self-esteem, support satisfaction, and attitudes toward baby were the lowest recorded during the study period, negative interactions were reported, and support need was high. Other indications of a negative situation came from agency reports of the participant being quiet and depressed. The participant had commented that it was her first time away from the reserve where her father and sister lived and that she was homesick. She was reported to have kept her pregnancy secret from her father during this period.

Towards the end of pregnancy there were indications of some improvement. Her father was informed of the pregnancy and accepted it. Staff reported that she spent a great deal of time at Lindenview and participated more. The ASSIS indicated more support persons from Lindenview and pregnancy-related attitudes became more positive.

The final informal interview during which the participant reported that she received advice during pregnancy corresponds with her final scores on the ASSIS, indicating low

need for advice and high satisfaction with advice. She also mentioned that support from family and friends was needed the most. This comment is likely related to the fact that her own support network was made up primarily of family and friends and her satisfaction with support was quite high.

Her ratings of perceived social skills were low, as were ratings of importance of the component items, suggesting that she could have minimized the importance of social skills as a psychological mechanism allowing her to maintain a moderate level of self-esteem as was indicated by the global and total self-esteem scores. Satisfaction with social participation was also low.

Participant 9A clearly underwent a difficult period of adjustment during her pregnancy, reflected in most of the scores and agency reports, and particularly noticeable at the second interview. By the final interview, however, a clear improvement in her situation was evident, particularly as reflected by scores for social support and pregnancy-related attitudes. The participant's self-esteem remained in the moderate range. She indicated an exceptionally low level of perceived social skills, yet rated this as not very important to her self-esteem. Conversely, her ratings of items relating to competence were very high. The findings suggest that the participant has developed personal resources and positive attitudes which allowed her to adjust to pregnancy and may facilitate coping with motherhood.

4.3.2.6 Participant 10A

Participant 10A came to Lindenview in her fifth month of pregnancy, upon referral by Pregnancy Distress Services Inc. She was 17 years old, had completed Grade 9 and was taking a Business Education course by correspondence. Her childhood was unstable and difficult (See Appendix B) and she was described by staff as being immature.

The participant reported quitting drinking and drugs and attempting to change poor eating habits during pregnancy.

Following delivery, she kept her child and remained at Lindenview for the Moms and Babes program. At the one month follow-up she reported negative interactions with Lindenview staff, centered around her decision to discontinue breastfeeding and stated that she intended to leave the residence.

Social Support

Network size for participant 10A was quite small, declining gradually from five persons at first interview to two persons at the third interview, then increasing to four persons at the final interview.

No support functions were reported to have been provided by staff but background information revealed that other professionals provided support prior to the participant's arrival at Lindenview. Negative interactions with residents were reported. The father of the child was listed at each

interview and provided all support functions continuing through to follow-up.

Support satisfaction fluctuated slightly between interviews but remained in the moderate range. Low satisfaction with support function A (Private Feelings) was consistently reported with the exception of the follow-up interview when a high score (3) was marked. Low scores on satisfaction with social participation also appeared throughout.

Support need decreased initially and then increased at the final interview. A low need for material aid was reported.

No noteworthy changes in network size, support satisfaction, or support need were found at follow-up.

Self-Esteem

A decline in both global self-esteem and the total score occurred between the first and fourth interviews. The decline was particularly marked from first to second interview when the total non-weighted score changed from moderate to low and the weighted score changed from high to moderate. The pattern was strongly reflected in the social skills subscore. The competence subscore showed a lesser decline followed by an increase to the original level at the final interview. Self-esteem at follow-up had increased to the level recorded at the first interview.

The participant scored consistently low on handling set-backs. This item, along with self-reliance were initially given low ratings of importance to overall self-esteem. This was reversed in later interviews; On the third interview and the final interview, items relating to handling set-backs, decision-making, self-reliance and doing things that are expected were the only items that were not scored low in importance.

Pregnancy-Related Attitudes

Scores on attitude towards pregnancy and baby were similar, although the attitude towards baby scores were slightly higher at each interview. Attitude towards pregnancy decreased substantially from first to second interview (5.6 to 4.7), then increased slightly and remained fairly constant for the remainder of the study. Conversely, attitude towards baby increased from first to second interview (5.8 to 6.3), then declined to the level at the first interview. At follow-up, however, a marked increase in attitude towards baby was recorded.

Inter-relationships between Variables/

Data from Various Sources

The observed pattern of change in support need resembled closely the pattern for network size. Support may have been sought by this participant when it was needed, resulting in an increased network size.

Background information indicating that her relationship with her boyfriend was unstable was not revealed by the ASSIS.

Based on responses on the self-esteem scale, perception of ability to get along with others and relationships with other females decreased on the second interview, then increased. This pattern corresponded with an increase in negative interactions, a decline in network size, and a subsequent increase in network size.

The participant's tendency to rate items relating to competence as more important to self-esteem and items related to social interaction as less important as the pregnancy progressed may indicate a developing image of self as a responsible mother.

Attitude towards pregnancy itself did not change much, however, as was confirmed by the participant's remarks during the final interview.

In summary, the participant's past had been difficult and she experienced difficulty in relationships and coping while at Lindenvue. Satisfaction with support from staff and residents appeared to be low relative to the experience of other participants. While there was some decline in self-esteem and attitude towards pregnancy, and fluctuation in support satisfaction, the scores for all three variables remained quite high and support need remained in the low to

moderate range. Support from boyfriend, family, and others outside Lindenview who were named as part of the support network may have provided this moderating influence. Alternatively, these findings may indicate social desirability of the response set. There were some changes in self-image and self-esteem as the pregnancy progressed which were suggestive of readiness for motherhood, and more positive attitudes were noted at follow-up.

4.3.2.7 Participant 11A

Participant 11A was a 17-year old Metis girl who grew up in Moose Lake, a split Metis/Cree Indian community and, for the past one and a half years had been living with her aunt in Winnipeg. She was pleasant-natured, although quiet. She was referred to Lindenview by Mount Carmel Clinic. She was 6.5 months in her pregnancy and had completed Grade 9. Her mother was an alcoholic, her father had left the family, and she had eight brothers and sisters who had all been taken into care by Child and Family Services. During pregnancy she reported that she had quit drinking.

She delivered a 6.1 pound infant which she had decided to keep. Her younger sister had delivered a baby and given it up for adoption.

At follow-up she was staying at Lindenview for the Moms and Babes program and had made arrangements to move into an apartment with her child.

Social Support

Her network during pregnancy was very small, beginning with only a girlfriend and the father of her child and later including one or two friends and, on one occasion, her aunt. At the follow-up interview, which was after a visit to Moose Lake, she reported a much larger network of twelve members, including a nurse, family members, and friends both from Lindenview and in the community.

She indicated having experienced negative interactions with her aunt at the first and second interview and with three friends at the follow-up interview.

Satisfaction with support was moderate and support need was very low at the first interview. On subsequent interviews, support need gradually increased to reach a moderate level. Support satisfaction decreased to the low range on the second interview, then increased, with high scores recorded at the third interview and at follow-up. The lower scores for support satisfaction at the earlier interviews may underestimate actual levels because, for the periods being studied, there were several support functions not provided and zeroes were recorded for satisfaction with these areas of support. Since perceived need for these support functions was low, satisfaction with support was probably higher than indicated by the score.

Support function A (Private Feelings) was the only support function that was given high ratings of perceived need throughout the study. Moderate scores on need for advice were reported at the final interview and the follow-up interview, and moderate scores for need for positive feedback and social participation were reported on the second and subsequent interviews. Scores for the remaining support functions were low.

Self-Esteem

A high score (4) on global self-esteem was recorded throughout the study, though decreasing to a moderate score (3) on the second interview. Total self-esteem scores increased slightly within the moderate range. Non-weighted competence subscores improved from low to moderate scores and weighted competence subscores increased substantially within the moderate range. Social skills items were rated as less important to self-esteem than were competence-related items, handling set-backs, and self-reliance. After the first interview, both competence subscores were higher than the corresponding social skills subscores. At the third interview and at follow-up, the ability to establish a good relationship with males, in particular, was perceived as not important to self-esteem. At follow-up, all measures for self-esteem increased.

Pregnancy-Related Attitudes

Attitude towards pregnancy and baby increased from first interview through to follow-up. At the final interview during pregnancy, however, there was a slight decrease in attitude towards pregnancy, which was initially neutral and had then increased considerably. Ratings on the attitude towards pregnancy scale had changed from neutral and slightly negative to quite good and extremely positive. Scores for attitude towards baby were all positive and were generally slightly higher than scores for attitude towards pregnancy.

Inter-Relationships between Variables/

Data from Various Sources

Support satisfaction was quite high and support need quite low despite small network size and, furthermore, when network size increased substantially at follow-up, support satisfaction was virtually unchanged. Possible explanations for these findings are that the quality of support from those few network members during pregnancy was very high, and at follow-up, positive effects may have been counteracted by negative interactions, which the participant had also reported. High support satisfaction may also relate to perception of her family's acceptance of her pregnancy; The participant had mentioned that her grandparents and other family members were happy about her decision to keep the child.

At follow-up, a greater number of friends in her network, high satisfaction with social participation, and improved social skills subscore, which included one item indicating improved ability to establish relationships with other females, all confirm that the participant had developed in the area of social relationships. This finding may also relate to staff reports that the participant enjoys parties and often came home late in the evenings. The increase in total self-esteem is consistent with these findings although it likely relates more to improvement in perceived competence than perceived social skills. The participant's perception of competence may have carried over to her abilities as mother; She appeared to be conscientious in caring for her child as was confirmed by agency reports.

Changes in global self-esteem scores were in the opposite direction of changes in total self-esteem indicating that, perhaps, some other important aspect of self-esteem was not measured by the instrument or, alternatively, that one measure of self-esteem, presumably the total score, is more sensitive than the other.

In summary, the participant was quite satisfied with the support she received from her small network, and her perceived need for support was low. While perception of competence increased throughout her pregnancy, perceived social skills declined somewhat, though improving by follow-up, at

which time the participant still remained at Lindenvue. Other favorable improvements at follow-up indicated that the participant had adjusted to the setting at Lindenvue and, at least temporarily, to being a mother.

4.3.2.8 Participant 12A

Described as a pleasant, confident, mature, yet somewhat reserved 17-year old, Participant 12A came to Lindenvue at five months gestation after hearing about the residence from a friend. She saw Lindenvue as an opportunity to continue her schooling, while not having to face the problems associated with being pregnant in a regular school in Dauphin. She had been taking Grade 11 and Grade 12 courses. She lived in the small community of Cormorant. Her cultural background is Metis.

She reported that she quit smoking during pregnancy. She had been undecided about her plans for the baby, initially intending to give it to her aunt to care for and finally deciding, two months prior to delivery, to keep the child and return to her parents' home.

Social Support

The size of Participant 12A's network was moderate; Five to six persons were named at each interview. Many were relatives, especially those named at the third interview after her trip home for Christmas. Her mother provided several

support functions and her father provided support function B (Material Aid), D (Positive Feedback), and E (Physical Assistance) as well as being a source of negative interactions. The social worker at Lindenview was named several times as a provider of advice and positive feedback. Friends were infrequently named as supports and they were twice named as sources of negative interactions. The father of her child was not identified.

Support satisfaction was in the high range throughout the study, increasing following her Christmas visit to her home, and decreasing on the fourth (final) interview, mostly due to the lack of reported social participation at this interview. Satisfaction with social participation had been low, initially, and then increased to a moderate score (3) on the second and third interviews.

Support need at the first interview was moderate, and then decreased slightly to the low scoring range on subsequent interviews. Need for support function A was the only item given a high score of (3), recorded at the first interview.

Self-Esteem

Global self-esteem remained at a moderately high score (4) throughout the study, while total scores increased from first to third interview and decreased on the final interview, returning to the original level. All non-weighted

scores were in the high range, while weighted scores were in the moderate range.

The social skills subscores were higher than competence subscores at each interview, with the exception of the final scores. While the competence scores, particularly the weighted scores, increased, the social skills subscores decreased.

Pregnancy-Related Attitudes

Attitude towards pregnancy was initially in the neutral range, which was lower than other participant's scores. The score on the second interview was, however, a great deal more positive and the score increased further on the third interview. Major shifts were from quite negative/sad to slightly negative/ quite happy.

Attitude towards baby scores were slightly higher and increased gradually from first to final interview, although these scores also were lower than the average for other participants.

Relationships between Variables/

Data from Various Sources

The relative pattern of the variables based on the ASSIS findings was generally as expected, over the first three interviews. Support need decreased as support satisfaction and network size increased. On the final interview, support

need remained low and support satisfaction may only have appeared to decrease due to the social participation support function not being provided and therefore being assigned a "0" on the support satisfaction question. If the scores are interpreted as a true drop in support satisfaction at the final interview, this would be consistent with the lower score for self-esteem on the final interview, which was strongly reflected in the social skills subscore.

Thus, the participant's relatively secure background, combined with support provided by several relatives and professionals during pregnancy, may explain the high level of support satisfaction and decreasing level of support need perceived by this participant. The results also indicated overall improvement in self-esteem, particularly relating to perceived competence. There is some suggestion, however, that towards the end of pregnancy, support satisfaction and self-esteem were slightly lower due to lower satisfaction with social participation. These findings also corresponded to the participant's network not including any friends, and her lower perceived ability to establish relationships with females and to get along with other people in general. The improvements noted above, as well as the participant's perception of greater "common sense for dealing with day-to-day living" on the self-esteem scale, and considerable improvement in pregnancy-related attitudes are suggestive of Participant 12A's preparation for motherhood.

4.3.2.9 Participant 13A

When she was only five months advanced in her pregnancy Participant 13A came to Lindenvue due to family conflict. Her doctor had referred her. She was 16 years old and had completed Grade 9. Her major source of financial support was her family. She was sociable, and popular with peers, while immature and experiencing difficulties in relationships with adults who she perceived as authority figures. A difficult relationship between her mother and herself was associated with her truancy, neglect of rules, and general irresponsibility. The participant perceived that her mother's expectations for her were unrealistic. Her relationship with her father was not as troublesome.

The participant did not report any attempt to make changes in her diet during pregnancy. She smoked, as was noted by the interviewer, although she reported that she had cut down. She also reported that she had quit drinking during pregnancy and that she did not take drugs.

She was adamant in her decision to keep the child. Following delivery her plans were to finish the courses she had begun at Lindenvue and to return to her family's home. She also planned to complete her high-school education at a school with a better social reputation than the school she had previously attended.

Social Support

Network size for Participant 13A indicated a gradual decline. At the first and second interview, however, network size was large (14 and 9 members, respectively) due to people named who had socialized with her at parties yet provided no other support functions. Thus, the actual amount of support provided, as indicated by the number of 'X's on the ASSIS, decreased from first to second interview, then increased, and decreased again slightly at the final interview. Network members who were frequently named as providing several support functions included her parents, grandparents, two girlfriends, and a male friend. At the final interview her network had narrowed down to parents/grandparents, her best friend, and the father of the child who had only been named once before, at the first interview, as a source of negative interaction.

Negative interactions with her mother were reported at the first interview. The social worker at Lindenvue was listed as a support person on the third interview.

The fluctuation in support satisfaction was in the opposite direction of changes in network size, but all within the high range of scores. The most significant change, however, occurring at the third interview, was due to the score of "0" for satisfaction with support function B (Material Aid), because this type of support was not provided.

Since satisfaction with this support function was high for the other three interviews, however, and support need was reported to be lower at the third interview than at other interviews, it may be assumed that overall support satisfaction on the third interview was actually higher than was apparent from the score. Following this assumption, it would appear that perceived support satisfaction remained fairly constant over the study period.

Support need and, in particular, need for support function A (Private Feelings) and F (Social Participation) were consistently high, whereas need for support function D (Positive Feedback) was consistently low.

Self-Esteem

The global self-esteem score (4) indicated satisfaction with self on all four interviews. Total scores also were in the moderately high range, increasing on the second interview, decreasing slightly on the third, and increasing again slightly on the final interview to a level which was somewhat higher than the original score. Both weighted and non-weighted scores followed this pattern. While the weighted competence subscore showed an overall decline, there was no overall change in the non-weighted subscore from first to final interview. Social skills subscores, particularly the weighted scores, were consistently higher than competence subscores and increased on the final interview. pa Pregnancy-Related Attitudes

Attitude towards pregnancy was in the positive range, increasing quite substantially from a score of 4.75 on the first interview to 6.00 on the third, then decreasing slightly to 5.75 on the final interview due to a change from perception of pregnancy as quite beautiful to slightly ugly. Overall, perceptions of pregnancy improved, changing from neutral/ slightly awkward/ quite foolish to quite positive/ graceful/ slightly wise .

Ratings for attitude towards baby were very positive at the first interview, decreased very slightly on two subsequent interviews, and finally increased to the highest possible score.

Inter-Relationships between Variables/

Data from Various Sources

Scores for social support, self-esteem, and pregnancy-related attitudes were high and increased during the study period. The participants' general perceptions of support also indicated that she had been supported in a beneficial way and that her attitude towards pregnancy was positive. Reports and observations of her sociability were confirmed by a large reported network of friends, high scores of perceived importance of social skills to self-esteem, and high ratings on Question 2 on the self-esteem scale for these items. Reports of immaturity were substantiated by lower scores on competence versus social skills on the self-esteem

measure, ratings of items such as "doing things expected ..." as only somewhat important to self-esteem, and her reported conflicts with persons in authority and lack of attention to health risks during pregnancy.

The participant's report that support during pregnancy is very important is consistent with her reported high need for support. She reported at the final interview that support was needed to "talk about everything". This was consistent with her report of high need for support function A (Private Feelings). Finally, she reported that the support she received had helped her to make decisions, and, correspondingly, her perceived ability to make decisions increased.

She had also mentioned a period of depression, which may be linked to a slight decline in self-esteem and network size during this period. There is no strong evidence, however, to indicate that there were any severe negative effects. The participant had, in fact, indicated that the support she received was helpful in allowing her to overcome depression.

The general picture of Participant 13A is of a fairly typical immature 16-year old from a middle-class family. She had a high need for affective type of support during her pregnancy and she appeared to have satisfied this need considerably during a four-month period at Lindenview, through

support from family, friends, and professionals. This was indicated by high support satisfaction, self-esteem, and pregnancy-related attitudes which each increased during pregnancy.

4.3.3 Group B Participants

4.3.3.1 Participant 1B

This 17-year old, described as neat, pleasant, and courteous as well as immature was only in her fourth month of pregnancy when she was first visited. Her fourth and final interview was conducted just before her eighth month of pregnancy. She had moved to Winnipeg from British Columbia where her mother was living. She apparently did not get along well with her mother. Her father and other family members were in Winnipeg. She was not attending high-school at the time of the study, but had completed Grade 9. No source of income was reported. She was staying at her grandmother's house and she had decided to keep the baby.

During her pregnancy she attended prenatal classes and received care at a medical clinic and later from a private physician. She reported eating more regularly and attempting to quit smoking.

Her plans for after delivery were to remain with her grandmother for a few months and then to move to B.C. to stay with a boyfriend who was not the father of the child

but with whom she had been living prior to coming to Winnipeg. She also intended to go to a community college in B.C. to "get a trade". The interviewer felt her plans to be somewhat unrealistic. She was eager to learn more about the study and to be informed of the results.

Social Support

Her network, as reported at the first visit, consisted of eight persons, mostly relatives and three close friends, including one male friend. Another male who was identified as the father of the child was named as a source of negative interactions. On subsequent interviews he was listed as a source of support function E (Physical Assistance) and F Social Participation) as well as negative interactions. Her grandmother was named at the first three interviews as providing affective-type support and material aid. A support worker was named only once, at the final interview.

Network size declined to five on the second interview, due to fewer family members being named, and while fluctuating on subsequent interviews, remained in the moderate range.

Support satisfaction was initially very high, but dropped considerably on the second interview and by the fourth interview had declined to the low scoring range. Very little positive feedback was reported from the second interview onwards and scores for satisfaction with this support function

were low. Satisfaction with support function A (Private Feelings) and C (Advice) was moderate to high for the first two interviews and low on subsequent interviews. Support function F (Social Participation), however, was consistently in the high satisfaction range, although a moderate score was recorded on the final interview. At each interview, the participant reported receiving material aid from her father and other family members and reported high satisfaction with this support function.

Support need was high throughout the study.

Self-Esteem

Global scores for self-esteem were moderately high (4) throughout the study, with the exception of a moderate score (3) on the third interview.

Total scores at the first interview were in the same range as the global score, but declined to scores which remained in the moderate range on subsequent interviews,

The above pattern was reflected in the social skills subscore. An overall decline in the competence subscore was similar to that of the social skills subscore but was not observed until the latter half of the study, when "ability to do things expected ..." declined. Items relating to competence were consistently given high ratings of importance to self-esteem and ratings of importance of social skills

decreased. Thus, weighted social skills subscores tended to be lower than weighted competence subscores. Non-weighted social skills subscores, however, were generally higher than non-weighted competence subscores, with the exception of the second interview at which time the lowest scores for social skills were recorded.

Pregnancy-Related Attitudes

Attitude towards pregnancy was positive and fairly stable from first to third interview, though pregnancy was perceived as gradually less beautiful and more awkward, and the score declined slightly on the final interview, when pregnancy was perceived as less friendly and less happy.

Attitude towards baby scores, which were higher than the above scores and increased from first to third interview, also declined on the final interview.

Inter-relationships between Variables

Data from Various Sources

Fluctuation in support satisfaction followed a pattern similar to fluctuation in network size. Because the high initial score for support need was the highest possible score, upwards shifts in support need could not have been detected, if in fact they had occurred, coinciding with declining support satisfaction.

The participant had explained that receiving adequate support, in her view, means feeling better about herself and her situation. The study findings agreed with her perceptions -- As support satisfaction and network size decreased, self-esteem and, to some degree, pregnancy-related attitudes also decreased.

On the final interview, support satisfaction had declined, particularly satisfaction with social participation, positive feedback, and advice. Self-esteem and pregnancy-related attitudes also declined. These findings may have been related to the participant's completion of prenatal classes, as well as reports of continued negative interaction with the father of the child and with her mother.

Low satisfaction with advice, indicated by the ASSIS, agreed with her perception, voiced at the final interview, that support was not always useful because people may offer a variety of conflicting opinions which can lead to confusion.

The participant had identified emotional support as important during her pregnancy and this was confirmed by high scores for need for support function A (Private Feelings) and D (Positive Feedback) and decreasing satisfaction with positive feedback as the number of persons providing this support function decreased.

Global scores for self-esteem did not follow the same pattern as total scores. This finding may again be an indication of varying sensitivity of scores or other possible weaknesses of the instruments.

Another discrepancy was between the participant's statement that her attitude towards pregnancy had improved, and the results of the Feelings Form, indicating that her attitude towards pregnancy was stable and then decreased on the final interview. The participant's comments may have referred to an earlier period when attitudes were more negative.

Participant 1B's situation and personal background appeared to be somewhat unstable, reflected in frequent changes in her network and, correspondingly, in support satisfaction and self-esteem, each of which showed an overall decline. It was evident that she had a high need for support, particularly affective support, yet this need was apparently not satisfied. Perception of perceived competence, which was important to this participant's self-esteem, declined and while ratings of perceived social skills fluctuated, estimation of the importance of these aspects of self-esteem gradually declined. Although her struggle to find the support she needed and to adjust to her pregnancy and forthcoming motherhood seemed to be difficult, she managed to maintain a positive attitude towards pregnancy, her baby, and her self.

4.3.3.2 Participant 2B

Participant 2B was five months into her pregnancy when Mount Carmel Clinic referred her to the study. She was 18 years old and had completed Grade 11. She was receiving financial assistance from welfare and her boyfriend.

The interviewer noted that, similar to Participant 1B, she was neatly-dressed and pleasant. She alternated between her boyfriend's parents' home and her family home in St. Vital and during her last trimester of pregnancy she was living with her boyfriend in an apartment. The condition of each of these residences was clean and neat. For approximately one month she cared for a two-year-old child who was her boyfriend's daughter and was left with her by the child's mother who had moved out of town. While she had responsibility for the child she appeared to be tired and worried. She was hospitalized with high blood pressure shortly before the final interview.

She attempted to drink more milk and eat vegetables during her pregnancy. She reported having been a social drinker but quit during pregnancy. Following delivery she stayed in an apartment with her boyfriend who would support her and the child, and planned to finish her high-school education by correspondence.

Social Support

Participant 2B reported a moderate-size network which was somewhat larger than the average. The lowest number of network members was seven, reported at the second interview, and the highest number was fourteen, reported at the fourth interview. Large network size was maintained at follow-up. Her network included two key support persons -- a boyfriend, who was not the father of the child, and her mother. These individuals were listed at each interview, and provided all support functions over the study period. Her network also included her boyfriend's family, her own siblings, and a few friends who she socialized with. The father of her child and her own father were not listed.

Her boyfriend was twice listed as a source of negative interactions, as was his previous girlfriend, the mother of the child that the participant had been temporarily caring for.

Support satisfaction was high as was support need, the former increasing slightly over the study period while the latter decreased slightly. At follow-up, support need increased slightly. Satisfaction with positive feedback was the only item consistently given only a moderate score on Question 2. -- with the exception of the follow-up interview -- despite several network members being listed as providing this support function. Likewise, need for social

participation was the only item on Question 3 which was consistently assigned a moderate rating.

Self-Esteem

As observed with several other participants, a moderately high rating (4) was assigned on Question 1, indicating overall satisfaction with self. The total scores fluctuated more, but were also in the moderate to high range.

There was a tendency for scores to increase overall from first to third interview and then to decrease. All scores at follow-up were higher than initial scores. Competence scores were higher than social skills scores, with the exception of the final interview when "ability to do things expected..." decreased. It should be noted in relation to these findings that the final interview was conducted shortly after the participant was hospitalized with high blood pressure.

Pregnancy-Related Attitudes

Attitudes toward pregnancy were only slightly positive at the first interview, and decreased somewhat before climbing to a final score which was higher than the initial score. The follow-up score was higher than scores recorded during pregnancy. Ratings on the good-bad and negative-positive scales were constant, however, in the 6-7 scoring range. Pregnancy was perceived as very awkward and ratings of preg-

nancy as slightly foolish changed to quite wise at the final interview and at follow-up.

Attitudes towards baby were slightly higher and followed a similar pattern.

Inter-Relationships between Variables

Data from Various Sources

A trend was noticeable in the area of social relations between the participant and other females. Few friends were indicated on the ASSIS as providing support function A (Private Feelings) or C (Advice), although the participant indicated both on the ASSIS and in response to the final 'Perceptions of Support' questionnaire, that she had a high need for these support functions. Ability to establish good relationships with females progressed from difficult to neither easy nor difficult as ratings of importance of this aspect of self-esteem changed from not very important to somewhat important. Perceived "friendliness" of pregnancy had increased towards the end of pregnancy and at follow-up.

The participant's comment during the final interview that her attitude towards pregnancy had become more positive was confirmed by the results from the Feelings Form.

In summary, this very conscientious young woman had a high need for affective-type support, which she apparently

was able to satisfy through a quite large network consisting primarily of her immediate family, her boyfriend, and his family. Self-esteem fluctuated between moderate and high. Pregnancy-related attitudes, while not exceptionally high, were nonetheless in the positive range and had improved somewhat at the final interview and even more so at follow-up. The interviewer noted at follow-up that she was doing very well caring for her child.

4.3.4 Drop-outs / Incompletes

Two participants from Lindenview and one of the Mount Carmel referrals dropped out of the study after one or two interviews. Another delivered prematurely after only one interview.

4.3.4.1 Participant 4A

Participant 4A, a 17-year old who had completed Grade 10 and was seven months into her pregnancy was interviewed only once before she left the residence. Her whereabouts, following her departure, was unknown.

The participant was an adopted child. While she was pregnant, her parents had moved to Ontario. She intended to keep her child. She did not report any attempt to change eating habits during pregnancy, but quit drinking.

Her scores on all three instruments were generally lower than the group average.

When asked about her network, she named three friends who she had socialized with and the social worker who had provided support function E (Physical Assistance). No affective-type support was listed and negative interactions with a male friend and her "boyfriend" were indicated. Support need was high and support satisfaction was low.

Global self-esteem was low and total self-esteem scores barely reached the moderate level. Social skills subscores were much higher than competence subscores. The only item given a high score was ability to establish relationships with males. The corresponding question referring to females was given a neutral rating.

Pregnancy-related attitudes were neutral, corresponding to several items being given a neutral rating of "3" on the Feelings Form. Attitude towards baby was slightly higher than attitude towards pregnancy. Both pregnancy and baby were perceived as neither good nor bad. Pregnancy, however, was perceived as quite positive, although slightly unfriendly and sad.

4.3.4.2 Participant 6A

Participant 6A, who was 17 years old and had a Grade 8 education, came to Lindenvue during her fifth month of

pregnancy when a friend told her about the residence. After the second interview, she left the residence to live in an apartment and could not be contacted.

She could, generally, be described as problematic. Her background was unstable; She had changed residence frequently and her mother was separated and was living common-law at the time of the study. During her stay at Lindenvue, she had poor attendance for programming, left the residence often without indicating where she was going, and lied. She was described as having unrealistic expectations and not facing her situation, yet she planned to keep the child. She did not attempt to change smoking, drinking, or drug habits.

Her average-size network did not change much from first to second interview; members included several family members and friends in the community. A boyfriend was listed at the second interview as a source of support function A (Private Feelings) and D (Positive Feedback) as well as negative interactions. Despite receiving support functions A and D from several network members, satisfaction with these support functions was low, with the exception of satisfaction with support function A being higher on the second interview. Support satisfaction scores improved from moderate to high and support need was high at both interviews.

Global self-esteem decreased from neutral to very dissatisfied, while non-weighted total self-esteem scores were high and decreased only slightly and weighted total self-esteem scores actually improved from moderate to high scores. Thus, the low score for global self-esteem may have been due to respondent error or some aspect of self-esteem not measured by total scores. Perceived ability to handle decisions, self-reliance, and handling setbacks decreased whereas most items on relating to social skills increased. An exception to the latter finding is that ability to establish a good relationship with a male showed the greatest decline. This finding may be related to negative interactions with her boyfriend, reported at the second interview. Items on the social skills subscore were perceived as low in importance to self-esteem on the first interview, and on the second interview, all aspects of self on the scale were judged to be high in importance to self-esteem.

Attitude towards pregnancy decreased somewhat from a positive to a neutral score. In particular, the pregnancy was perceived as more foolish and awkward. Attitude towards baby scores were relatively higher and increased. On the second interview the participant marked the highest rating of "7" for each item on the Feelings Form for the concept "baby".

4.3.4.3 Participant 14A

A sixteen-year old referred to Lindenview by a social worker at seven months in her pregnancy was seen only once before she delivered prematurely. Her last grade completed was Grade 10. She would be described as friendly and talkative. She had reported an attempt to drink more milk and to cut down on smoking during pregnancy. She planned to relinquish her child.

Her network was seven members. A major support person who provided all support functions was a boyfriend. Her mother also provided several support functions. Other network members were mostly friends in the community. She reported negative interactions with the father of her child and several other individuals.

Satisfaction with support was very high and support need was also in the high range although considerably lower than the support satisfaction score.

Global self-esteem was scored as quite dissatisfied (2) and total self-esteem scores and subscores were in the moderate to high range.

Attitude towards pregnancy was neutral and attitude towards baby was only slightly higher. Both scores were much lower than the means for Group A participants.

The case of Participant 3B who, after an initial interview decided not to participate further, is found in Appendix B.

4.4 FINDINGS IN RELATION TO RESEARCH QUESTIONS

In the following discussion, reference is made to all study participants generally and some distinctions between Group A and Group B participants are noted.

4.4.1 Research Question 1

Will the level of support satisfaction among pregnant adolescents in both groups increase during the study period?

The data indicate that support satisfaction increased for most participants over the study period. Improvement in support satisfaction was reflected in the group means and for six participants in Group A and one participant in Group B, scores for support satisfaction toward the end of pregnancy were higher than initial scores. Two other Group A participants had scores which were in the high range and constant over the study period. With one exception in each of Group A and Group B, scores on the final interview were all in the high range. Three participants in Group A and one of the Group B participants had lower scores at the final interview than at earlier interviews.

High scores were most common for satisfaction with support function A (Private Feelings) and C (Advice) and the proportion of high scores for satisfaction with these support functions steadily increased. Support need scores for these support functions were also high and decreased.

4.4.2 Research Question 2

Will the level of **support need** among pregnant adolescents in both groups decrease during the study period?

Support need decreased over the study period. A pattern identified for greater than two-thirds of participants was initially high scores which gradually declined, while remaining in the moderate to high scoring range. Support need scores for Group B participants all were in the high range, with a slight increase in one case and a slight decrease in the other case.

4.4.3 Research Question 3

Will the level of **self-esteem** among pregnant adolescents in both groups increase during the study period?

Due to the observed variation among participants in whether self-esteem scores increased, decreased, or remained constant, there is not strong support for the suggestion that self-esteem increased over the study period.

Global scores were constant for the majority of participants. Three participants indicated an overall decline in global self-esteem, and two participants' scores increased. Total scores fluctuated, but increased overall among approximately one half of the participants, while the remaining participants' scores decreased. There was an increase in self-esteem from first to second interview for slightly over one half of participants. A slight decline in scores at the final interview was noted for nine participants in Group A and both Group B participants, reflected most strongly in the decline in perception of social skills and items relating to self-reliance and handling setbacks. These patterns were similar for weighted and non-weighted measures, although the weighted scores fluctuated the most. The number of participants whose weighted and non-weighted competence subscores increased and exceeded social skills subscores was approximately equal to the number of participants whose social skills subscores increased and were higher than competence subscores. Competence scores decreased overall in only one case, where attitude towards baby and overall self-esteem decreased as well. However, there were more social skills subscores in the high scoring range, overall, than there were competence subscores in the high scoring range. There was a tendency toward high social skills subscores among younger participants.

High rankings were common for perceived ability to get along with others, ability to establish a good relationship with other females, and decision-making ability. The lowest-ranking item referred to ability to handle set-backs and disappointments.

Several participants demonstrated a pattern of scoring items on Question 3 of the self-esteem scale in relation to their responses to Question 2 which is suggestive of a tendency towards self-consistency (Rosenberg, 1979) or defensive re-appraisal (Lazarus, 1971). Particularly when an aspect of self was given a low rating on Question 2, the corresponding score on Question 3 indicated that the aspect is not important to overall self-esteem. These same participants ranked items as very important to self-esteem when the items were given high ratings on Question 2.

4.4.4 Research Question 4

Will **pregnancy-related attitudes** among pregnant adolescents in both groups shift during the study period?

There was a predominant pattern of increase in both attitude towards baby and pregnancy. The findings agree with Leonard's (1983) findings that attitude towards pregnancy increased as a result of a self-enhancement program. With only two exceptions, all of the participants' scores for attitude towards pregnancy increased substantially, and the same was observed for attitude towards baby, with only three exceptions.

There was a strong tendency for attitude towards pregnancy scores at the final interview to show a slight decline or no change from scores at the previous interview. A possible explanation for this finding is that attitude towards pregnancy declined as the pregnancy became more awkward due to the size of the baby. This explanation is verified by scores on the Feelings Form item related to awkwardness or beauty of pregnancy. An alternative explanation would be that the lower scores at the final interview are related to the tendency toward marking the items on the Feelings Form with either a "4" or a "7" on the final interview.

Despite the decline, final scores were seldom lower than initial scores.

Attitude towards baby was positive at the end of pregnancy for all participants. This could be due to a stronger identification with the child at the end, due to increased size and activity of the fetus and the universal positive regard for infants. Positive attitudes toward teenage pregnancy are not as common and many participants perceived pregnancy as increasingly awkward, unappealing, and restrictive.

In one Group A case study, where attitude towards pregnancy decreased, the participant's family did not approve of the pregnancy, an attempt was made to maintain the secrecy of the pregnancy, and the participant had decided to relin-

quish the child. In another case, the participant's overall experience of pregnancy had gradually become more negative, as reflected in scores for the other variables and confirmatory agency reports. Attitude towards both pregnancy and baby also decreased at the final interview for participant 1B, and lower scores for all variables were found.

Ratings of "1" on the semantic differential scales were rare. When they did occasionally occur, pregnancy was indicated as ugly, awkward, foolish, or unfriendly.

4.4.5 Research Question 5a

Will support satisfaction be positively related to self-esteem?

The data did not indicate that support satisfaction was closely related to self-esteem. In fact, self-esteem scores frequently decreased or remained constant while there was improvement in support satisfaction, support need, and pregnancy-related attitudes. The two variables did correspond, however, for the two Group B participants and two participants in Group A. The failure to observe any improvement in self-esteem while support satisfaction increased may be due to potential positive effects being overridden by an opposing effect on self-esteem or it may be possible that beneficial effects on self-esteem are delayed and could not be detected during the study period. Another possibility is that self-esteem may have been so low due to traumatic past ex-

periences suffered by some participants that only long-term improvements in life situation and support systems could have a positive effect on self-esteem. Jessor and Jessors' (1977) work with young adults demonstrated only a weak correlation between social support and self-esteem.

4.4.6 Research Question 5b

Will support satisfaction be positively related to pregnancy-related attitudes?

The study results suggest that support satisfaction is positively related to pregnancy-related attitudes. The large majority of participants' scores for pregnancy-related attitudes increased, matching the increase in support satisfaction scores. In the case of Group B participants and Participant 1A, whose satisfaction with support scores decreased, their pregnancy related attitudes also decreased.

4.4.7 Research Question 5c

Will support satisfaction be inversely related to support need?

The study results bear strong evidence that there is an inverse relationship between support satisfaction and support need. As support satisfaction increased among participants, support need almost invariably decreased, although scores in the low range were rare. Conversely, when support satisfaction was moderate to low, support need was invaria-

bly high. Furthermore, in most cases, at the early interviews, support need scores were higher than support satisfaction scores, while at the final interview, support satisfaction scores were higher than support need scores.

4.5 AGGREGATE PROFILES

Each case study reviewed in this chapter presents a unique situation and individual response to the situation. Some similar patterns among clusters of two or more participants emerged, and are described below.

One pattern is exemplified by Participant 3A, 9A, and 11A. Each of these participants had a disruptive past involving such problems as violence, abuse, alcoholism, and family breakups and were either Indian or Metis. Each participant also reported a small network and low support satisfaction and other more negative attitudes early in the study relating to homesickness. During their stay at Lindenview, with improved social relationships and support from professionals, their situations improved substantially. Attitude towards pregnancy was characteristically low at the first interview and improved considerably. On subsequent interviews, attitude towards baby was quite positive among these participants, remained in the high range, and improved following delivery. Self-esteem also improved and, for Participant 11A, reached a score of "5" at follow-up. These findings reflect a more positive attitude towards teenage

pregnancy, characteristic among native groups, and may also exemplify how having a child has contributed to making their lives more meaningful and making themselves feel more important. Pregnancy may have been regarded as increasingly more positive because it gave them the opportunity to receive services and supports which may otherwise have been unavailable to them.

The profile for Participant 7A and 10A is similar to the above profile, in the sense that these participants had experienced problematic family background and ongoing negative interactions. They appeared to be unique, however, in their responses to the situation, perceiving themselves as extremely self-reliant and thus, rejecting outside intervention and indicating poor social skills and minimal social interaction. Network size was quite small and satisfaction with social participation was low. The total scores for support satisfaction and support need were moderate to high, showing some improvement. Lower self-esteem than the average for Group A was noted for these two participants. Pregnancy-related attitudes were high, demonstrated a decline at the second interview, corresponding with the beginning of the third trimester of pregnancy, and increased at follow-up, as did self-esteem.

Two older participants, 1A and 5A, each with a Grade 10 education, were both described by Lindenview staff as immature and unrealistic. Perceived support need was high and

dependency on family was indicated, yet negative interactions with family were reported. Another characteristic common with the two participants was difficulty in social relationships. Although Participant 10A perceived her social skills to be high and was satisfied with the support she received, staff at Lindenview did not observe that she had established a strong support system. Participant 1A, however, was clearly lacking in the area of social skills and relationships. Accordingly, her support satisfaction score was low. Evidence suggested that self-esteem was lower than average for both participants. By contrast, their attitudes toward pregnancy and baby were very positive. Perhaps without having to bear the stigma of pregnancy at a young age and also due to the fact that they had discontinued their schooling and had no reported career plans, motherhood was regarded more favorably by these participants.

In contrast with the above profiles, a few participants (2A, 8A, 12A, 13A, and 14A) were from a more middle-class supportive family, were at a grade level expected for their age, and were apparently concerned about careers. With two exceptions, each had decided to relinquish the child. Participant 12A and 13A had decided to keep the child. Participant 12A's decision may have been related to the greater acceptance of motherhood at a young age, within Metis culture. Participant 13A's adamant decision to keep the child was likely related to her power struggle with parents and

authority in general, and was, perhaps, her means of establishing her identity as an adult who can make independent decisions.

Support networks among the five participants were generally quite large and stable. Support satisfaction was moderate to high and remained constant or increased, while support need decreased. Self-esteem was moderate to high and did not demonstrate a significant shift from first to final interview. An exception was a slight decrease for Participant 2A due to lesser perceived ability to make decisions. Pregnancy-related attitudes increased with attitude towards pregnancy initially lower and increasing more than attitude towards baby.

4.5.1 Group B Participants

Participant 2B seemed to be more positive, more capable in dealing with her pregnancy, and developed more positive attitudes towards pregnancy than did Participant 1B. There were, however, a few similarities between the two participants, relating to decreasing availability of supports and satisfaction with these supports. Their support networks, while as large or larger than networks among Group A participants, consisted of family and friends, while professionals were generally not named. This latter observation is not surprising, considering that these participants were living in the community and face barriers to professional services

whereas these services were readily accessible to Lindenview residents. Group B participants received less positive feedback, and satisfaction with this type of support decreased for Participant 1B, and was constant at a moderate level for Participant 2B. Overall support satisfaction as well as support need was higher among these participants than among Group A participants. Self-esteem scores were similar to scores for Group A participants, although slightly higher. Pregnancy-related attitudes remained quite positive although the attitudes of Participant 1B and 2B shifted in opposite directions.

4.5.2 Drop-outs

Both Participant 4A and 6A had unstable family backgrounds, difficulties in family relationships, and very little support from family. Satisfaction with support, particularly affective-type support (Support functions A and D) was low. Support need was high. Self-esteem was moderate to low and competence subscores were considerably lower than social skills subscores.

Both had generally negative or neutral attitudes towards pregnancy and did not attempt to make many changes in lifestyle habits during pregnancy, yet they had both decided to keep their babies.

The two participants were each involved with a boyfriend.

Thus, the life situation and experience of pregnancy for these two drop-outs appeared to be considerably more negative and problematic than the majority of Group A participants. The participants, themselves, would be described as more negative and unco-operative in general.

4.5.3 Follow-up Interviews

Although only four follow-up interviews were conducted, there appeared to be some similarities. Network size remained constant, while support satisfaction declined, in two cases. Support need increased in three cases and remained constant in one case. Self-esteem scores improved, particularly items relating to competence, and attitude towards pregnancy and baby improved in each case.

The slight decline in support satisfaction may be explained by restrictions on socializing, due to the demands of motherhood, and greater need for support. Positive attitudes towards self and the baby and perceived competence, although they demonstrated an initial post-delivery elevation, could later be threatened as demands increase after the initial one month period.

4.6 DISCUSSION OF ADDITIONAL FINDINGS

4.6.1 Behavioral Links

There was some evidence in this study, based on participants' reported attempts to change health behaviors, suggesting that more positive attitudes and satisfaction with support are linked to more positive health behaviors. This link, and the research which supports it were discussed in Section 2.6.

4.6.2 Defensive Re-appraisals

A related finding, also supported in the literature, is a tendency towards self-consistency in perceptions of self and ways of behaving to maintain or enhance self-esteem. Participants with low self-esteem judged the least favorable aspects of themselves to be not very important to self-esteem and vice versa. Lazarus (1971) has pointed out how this type of coping mechanism may serve to short-circuit a damaging stress reaction. An example was given of young American Negroes who, despite massive discrimination, expressed a higher level of self-esteem than whites of comparable age.

Another interesting finding is that participants who exhibited lower self-esteem had higher pregnancy-related attitudes. These were usually young women with disruptive family background and no plans for furthering their education or

careers. Having a child may have been regarded more positively because it was perceived as a means of enhancing self-esteem. As further support for this suggestion, both self-esteem and pregnancy-related attitudes increased substantially at follow-up interviews.

In some cases, however, coping methods may have been ineffective or a threshold level of stress may have been reached. Several participants who experienced negative events or interactions such as a family argument during a weekend trip home reported a decline in support satisfaction, self-esteem, and attitude towards pregnancy soon afterwards. This general tendency is in accordance with Gad & Johnson's (1980) study which revealed that negative life events were significantly correlated with perceptions of health status and personal adjustment.

4.6.3 Positive Feedback

Positive attitudes towards pregnancy were generally encouraged by family and friends; All participants reported that they had received positive feedback during pregnancy. The nurse at Lindenview spoke of her observations that the expected arrival of a child was eventually accepted by most of the young womens' network members, family members in particular, and that many expressions of support were provided. Boyfriends who were the fathers were in several cases involved and provided affective-type support.

Chapter V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

To review, an exploratory study, aimed at discovering whether there were improvements in selected psychosocial factors among two groups of pregnant adolescents exposed to different arrangements for prenatal care and examining inter-relationships among these variables was conducted over a twelve-month period.

Three standardized instruments -- the Arizona Social Support Inventory Schedule (Barrera et al., 1981), the Self-Esteem Scale (Jessor & Jessor, 1977), and the Feelings Form (Leonard, 1983) -- were used to measure social support variables, self-esteem, and pregnancy-related attitudes, respectively. An additional instrument, the General Perceptions Questionnaire, was developed by the researcher for the purpose of obtaining qualitative data. Instruments were reviewed by a panel of judges and pilot-tested with pregnant adolescents who were similar to the study participants. Trained interviewers administered the instruments during individual interviews with participants, conducted at monthly intervals during the second and third trimester of pregnancy and at one month post-delivery.

Indices of support satisfaction, support need, network size, global and composite scores of self-esteem, as well as competence and social skills subscores, and measures of attitude towards pregnancy and baby were obtained. The incorporation of qualitative information in case studies served both to validate findings from standard instruments and to explain findings for individual participants in relation to age, cultural and family background, and other personal factors.

The participants who completed the study were eleven young pregnant women, ranging from 16 to 23 years of age, who registered at Lindenview Residence during the summer and fall of 1986 (Group A) and two additional pregnant adolescents who were living in the community and who were referred to the study by a community health clinic.

The discussion of findings addressed the following research questions:

1. Will the level of **support satisfaction** among pregnant adolescents in both groups increase during the study period?
2. Will the level of **support need** among pregnant adolescents in both groups decrease during the study period?
3. Will the level of **self-esteem** among pregnant adolescents in both groups increase during the study period?

4. Will pregnancy-related attitudes among pregnant adolescents in both groups shift during the study period?
5. Will support satisfaction be
 - a) positively related to self-esteem
 - b) positively related to pregnancy-related attitudes
 - c) inversely related to support needin both groups of pregnant adolescents?

Further insights into common situations and trends observed among clusters of participants were brought forth in the presentation of aggregate profiles and further discussion.

The remainder of this final chapter highlights the major findings of the study, discusses implications, and provides recommendations for development of health education programs for pregnant adolescents.

5.1 MAJOR FINDINGS

The trends identified among clusters of participants revealed several unique patterns but, on the whole, supported the importance of social support among the participants in this study as a resource for reducing stress. All participants had a high need for support, particularly people to talk to about personal and private feelings, people to turn to for advice and support in decision-making, and friends to

socialize with. This was evident by the scores for support need recorded on the ASSIS throughout the study, and general perceptions which were expressed during final interviews with the researcher.

Support satisfaction was in the high range on final interviews for most participants. When negative incidents or conflicts with network members were reported, support satisfaction often decreased to low scores, although in most cases participants showed eventual improvement in support satisfaction.

High support satisfaction was not conditional on having large support networks. In fact, support networks were generally not large, with an average of six members. Networks were usually comprised of family, friends, and professionals. Friends, who the participants met with for fun and relaxation, made up the greatest proportion of network members and support from other pregnant teenagers, in particular, was viewed by some of the participants as crucial in helping them to cope during pregnancy. The participants' mothers, one or two close friends (male or female) and the social worker at Lindenview were frequently named as support persons providing a range of support functions, particularly affective-type support.

Participants in Group A were able to maintain supports in the community, as well as to develop a support system of

friends and professionals at Lindenview, although in several cases, outside supports decreased somewhat and were replaced by support persons at Lindenview. The participants in Group B had less support from professionals but appeared to compensate by having a greater number of family and friends in their networks.

Network size often increased just prior to delivery, which may be related to the fact that the pregnant state of these young women and their need for support was more visible to family and friends at this time. Support need generally decreased, although scores were rarely in the low scoring range. Support need, as discussed in Chapter 3 and supported in this study is closely tied with stress and anxiety and negatively related to support satisfaction.

Self-esteem scores fluctuated considerably and few clear trends were identified among participants over the study period, nor were there many strong indications that self-esteem was related to support satisfaction, support need, or pregnancy-related attitudes. The fluctuations may reflect real changes in self-esteem caused by negative life events, and positive aspects of the program at Lindenview including social support. On the other hand, due to limitations of the instrument, particularly the inability of the instrument to measure change in perceptions of physical appearance, the scores may not accurately reflect overall self-esteem. There was a prevalence of lower total self-esteem scores at

the final interview, often due to decreasing perception of social skills. Conversely, competence subscores frequently increased over the study period.

Weighted scores, which included estimations of the importance of each component of self-esteem, fluctuated to a greater extent than non-weighted scores and the relationship between weighted and non-weighted scores was inconsistent.

A tendency to underestimate the importance of aspects of self-esteem that were given low ratings on the self-esteem scale was observed, and may represent the participants' attempts to maintain or enhance levels of self-esteem.

One of the more striking findings was the high scores and level of improvement of scores on the Feelings Form measuring pregnancy-related attitudes. Attitude towards baby was consistently higher than attitude towards pregnancy. A slight decline in these scores at the final interview was equally apparent and was likely related to the increased awkwardness and unappealing body changes associated with pregnancy closer to delivery.

The findings also suggest that support satisfaction was positively related to pregnancy-related attitudes among the study participants.

Follow-up scores measured one month post-delivery demonstrated initial elevation in self-esteem, attitude towards the baby, and perceived competence.

Findings from the instruments and additional qualitative information converged to reinforce and elaborate the patterns identified above, as well as to reveal unique patterns among clusters of participants.

Participants with extremely disruptive family background who had experienced social deprivation or numerous negative life events but who removed themselves entirely from these situations appeared to utilize the supports at Lindenview and showed improvements during the study period. Others, with similar backgrounds, who faced ongoing negative interactions tended to isolate themselves socially and showed only minimal improvements. Yet others, who were described as immature and unrealistic did turn to others for support and indicated higher perceived satisfaction with support and self, although agency staff had concerns about their coping abilities.

In contrast with the above examples, several participants had more stable middle-class backgrounds, stable supports, and aspirations for future careers. These participants demonstrated considerable improvements and had some of the highest scores for support satisfaction and self-esteem.

Finally, Group B participants had very high need for support, less support from professionals, and less positive feedback. While one participant was very satisfied with the support she received from a large network including family

members and a boyfriend, the other participant was less satisfied and reported negative attitudes towards the end of pregnancy.

In general, the psychosocial benefits accrued appeared to be greater, the longer the participant was staying at Lindenview. For example, several participants were able to develop greater social skills and establish a network of friends when they remained at Lindenview for longer than two to three months. It was evident that several participants developed an altered perception of themselves as more competent, and placed greater importance on such aspects of self as doing things expected of them, decision-making abilities, and common sense, thus indicating greater maturity and readiness for parenting responsibilities.

5.2 IMPLICATIONS

At Lindenview Residence, an appropriate atmosphere for managing stress appears to have been created, where pregnant adolescents can share their experiences while being given enough freedom to maintain outside contacts and meet socialization needs, where professionals give support and guidance and act as facilitators of more supportive family relationships, and where educational needs may be met.

The adaptability of human beings was demonstrated in this setting among participants who used defensive re-appraisals

to minimize personal deficits, established close ties with other individuals despite being in a strange new setting and situation, and in the case of Group B participants, utilized supports in the community in the absence of any professional help and in one case, were apparently able to satisfy needs for support. The study provides convincing evidence to document the high need for support at least among the group of pregnant adolescents in this investigation and also indicates that, despite the adaptability of these individuals, the demands of the situation may, in some cases have exceeded abilities to cope. This may have occurred more among pregnant adolescents who withdrew from the study or who did not participate in the study. In order to facilitate stress-buffering among this group, negative attitudes towards themselves and their situation would need to be dealt with.

One specific aspect of dealing with their situation which was particularly difficult among the participants in this study was deciding whether or not to keep the child. Affecting their decision-making, the positiveness of pregnancy-related attitudes among most participants, the high degree of affective support and advice from family and close friends, the high level of satisfaction with this support and, finally, the decision made by most participants to keep the child may all be inter-related. To expand further, there may be a pervasive social norm which is perceived by

these young women and which directs them towards motherhood. In addition, among the many participants who had an unhappy and difficult childhood and experienced family conflicts, having a child may be perceived as a means of fulfilling personal needs such as the need to be loved and accepted, the need to feel important, and the need to be independent and adopt adult roles. Other perceptions which were commonly expressed by participants, namely the perceived need for social participation, and the desire to fulfill educational and career goals suggest that child-bearing may introduce conflict and make it difficult for these young women to meet all of their needs.

5.3 RECOMMENDATIONS

The program at Lindenview Residence appeared to contribute to meeting the expressed needs of the young women in the study and to the development and maintenance of positive pregnancy-related attitudes and high levels of support satisfaction. Community programs such as day schools for pregnant teens, counseling, drop-in support programs, or self-help programs could be designed to meet the common needs for intimate interactions, advice, and socialization expressed by these young women. In view of the negative impact of interpersonal conflicts on attitude towards pregnancy and support satisfaction, it appears that the facilitation of improved communication and interactions between the young

women and their families, boyfriends, and peers during pregnancy would enhance outcomes of this type of program. Mothers of these young women, who were often reported as sources of support and advice, should be involved in these programs.

Assessment procedures in facilities or programs for pregnant adolescents could be improved by incorporating a few questions pertaining to support networks and satisfaction with the major areas of support. Individual counseling and group programs could then be tailored to enhance support functions which are recognized as deficient.

The programs must be made attractive and accessible to those most in need, as these young women are likely to benefit the most in terms of stress reduction. Most of the young women who make use of such programs are referred by Child and Family Services workers who are mandated to follow teenagers under 18 years of age. Professionals in hospitals where deliveries to young mothers are high report that those between the ages of 18 and 23 "fall between the cracks" and are not exposed to services. Others, like the drop-outs and refusals in the study, who may be missed by community health and social service programs appear to have more negative attitudes, emotional difficulties, stressful life situations, and are probably most in need of social support. Improved advertising of programs for pregnant teens and better systems of identification and referral to these programs are therefore necessary.

At a time when some crucial decisions are being made by these young women and they are seeking support in doing this, it may be appropriate to introduce some decision-making skills which can be used not only for making an appropriate decision regarding whether or not to keep the child, but also for making the inevitable decisions they will face regarding their future directions. Factors which need to be addressed in the decision-making process are the needs of the infant for optimum development and the participant's own needs, potential, and opportunities for development of social skills, career advancement, and personal fulfillment. Expectations that giving birth to and caring for a child will overcome their personal difficulties and meet their needs must be dealt with more realistically. Ideally, decision-making skills should be developed earlier, within the school system.

There are certain social interventions which should take place before pregnancy occurs, either to prevent a pregnancy which would have a poor long-term outcome or to minimize difficulties and stressfulness of the pregnancy. In particular, counseling by social workers or school guidance counselors to encourage career goals and programs or courses to facilitate satisfying peer relationships would be beneficial. Interventions which deal with problems such as neglect, sexual abuse, and disruptive family interaction which affect the emotional well-being and self-esteem of the young

women are additional means of preventing them from turning to child-bearing as a means to overcome areas of their lives that are lacking.

Prenatal programs designed to build on the already developing sense of competence, positive attitude towards baby, and support from friends could encourage carry-over to other aspects of functioning such as continuing schooling or overcoming problem behaviors affecting health.

Problem behaviors such as drinking alcohol, smoking and taking drugs among adolescents characteristically occur in clusters, as was evident in the reported behaviors of some of the study participants who continued to smoke and did not report making any of the recommended dietary changes during pregnancy. The health risks to the developing fetus associated with these behaviors, not to mention the risks to the young women, themselves, are extreme (Moghissi & Evans, 1977; Naeye & Tafari, 1983). Any small successes in reducing them would be commendable and, according to self-efficacy theory (Bandura, 1977) may contribute to further improvements and carry over to other behaviors.

Any means of assisting young pregnant women in perceiving that they are carrying a real child, through the use of visual aids and discussion of prenatal growth and development may be beneficial in stimulating positive feelings toward the child at an early stage and increasing their motivation

to modify behaviors such as smoking which have a direct effect on the infant's health.

It is likely that behaviors such as smoking are a means of stress reduction among this group. To replace these, more positive ways of coping with stress must be learned. Groups of pregnant adolescents in existing programs, as is found at Lindenview, can be a built-in source of role-models and support for positive behavior changes. In this type of setting, participants gain an opportunity to practice dealing with peer pressure and making health-related decisions. Although factual knowledge regarding the hazards of smoking appears to have only a minimal effect on smoking behavior (McAlister, 1979), programs which use a skills approach, integrating cognitive and affective learning, and which make use of peer group activities have been effective in deterring smoking behavior (Evans & Raines, 1978).

5.3.1 Further Research

There is a great deal of room for research to discover the types and functions of social support most effective for specific problems such as adolescent pregnancy, and toward understanding the mechanisms by which social support can reduce stress. An in-depth investigation of the inter-relationships of self-esteem, stress, and social support would contribute to an understanding of the stress process. This type of research may help to justify more programs that of-

fer supportive environments for pregnant adolescents. Finally, within specific programs where improvement in support satisfaction and stress reduction have been documented, an attempt should be made to conduct more elaborate program evaluation to specify which program components are most effective and could be duplicated elsewhere.

5.4 CONCLUDING STATEMENT

In some of the most extensive work in the area of stress and coping, Lazarus (1971, p. 55) states:

"To be effective in stress management, life settings must be constructed so that its members can withdraw from damaging or threatening social relationships and substitute others, remove themselves into solitude or find a safe haven within a loving and supportive family group, register complaints and change the system when it fails, find activities and services which can be preventive or therapeutic, obtain reassurances about societal threats to security, maintain defensive re-appraisals..."

While safe havens, in an absolute sense, are difficult to create, for where there are human beings in interaction with each other and their environment there will always be potential for conflict and negative events, a more or less safe atmosphere may be constructed on a temporary basis, as in the setting at Lindenview Residence. The need is great among pregnant adolescents for such a temporary sanctuary because of a multitude of demands and high stress levels which these young women are facing, threatening to exceed their ability to cope. Within such a setting, as exemplified in this study, the opportunities are great for utilizing built-in

supports and enhancing the experience and outcome of pregnancy. There also are opportunities to go beyond this, towards improvement in social skills, competence, decision-making abilities, and health behaviors. Facilitating these latter improvements is where health educators and other professionals working with pregnant adolescents should be putting more effort in order to enhance the quality of life for these young women in the years ahead.

Appendix A
DATA COLLECTION INSTRUMENTS

Description of Prenatal Support Study

I am a graduate student from the University of Manitoba. I am doing a study about the help that young women receive during the stressful time of pregnancy. The information I collect will be useful to find out if the life situation of pregnant teens can lead to improved social support and positive attitudes.

If you agree to participate, you will be asked how satisfied you are with the help you receive, how you would describe yourself, and your feelings about pregnancy. This will take about forty minutes. You will also be asked what month of pregnancy you are in, your source of income, and whether or not you have decided to keep the baby after delivery.

The interviews will be repeated each month until the end of your delivery. You will meet alone with the researcher. Whatever you tell the interviewer will be kept private. You will be free to withdraw from the study for any reason. There will be no penalty if you withdraw.

If you have any questions, please phone myself, Heather El Gamal, at 269-6808 (evenings) or leave a message at 474-9014 and I will get in touch with you.

Please show below whether or not you wish to participate and sign your name at the bottom of this page.

Thank you very much.

Heather El Gamal

PERMISSION FORM

Name _____

Do you agree to participate? (Yes or No) _____

Signature _____

Explanation of Study

INTERVIEWER NOTES

Please use the following wording as a guide for explaining the study.

PURPOSE OF STUDY

"Because pregnancy during the teenage years can be very stressful, we need to know how teenagers may best be supported during pregnancy."

WHAT IS EXPECTED OF PARTICIPANTS

"I would like to meet with you once a month until your delivery. During our meetings which will take 20 minutes to half an hour, I would like you to answer the questions as honestly as you can. If there is any question you would rather not answer, you can tell me so and we'll skip it."

FEEDBACK

"I'll be letting you know what we find out about the group of teenagers we talk to. For example, if we find out that half of the group is happy with the support they are getting during pregnancy, I'll tell you this. I won't be giving out any information about any one person."

CONFIDENTIALITY

"This includes information about yourself. I won't give out any information about you alone. What you tell me will be kept private and won't get to your teachers or anyone at home."

FREEDOM TO WITHDRAW

"If you feel you'd like to drop out of the study at any time, you are free to do so and there will be no penalty."

Data Collection Procedures

INTERVIEWER NOTES

Remember to bring the following to each session:

- Consent form
- Recording form
- 2 copies of each of the three instruments
- Interviewer notes:
 - Data Collection Procedures
 - Explanation of the Study
 - Self-Esteem Scale (Interviewer notes)
- Recording sheet for ASSIS
- Pencils

Procedures to follow:

- Identify yourself. Explain that you are from the University of Manitoba and that you are collecting information for a study about the kind of support and help that pregnant teens receive and how they feel about themselves and their pregnancy.
- Explain the study further, following your 'Explanation of the Study' Interviewer Notes.
- Ask the participant to hand in consent form or have her fill one out if she has not already done so.
- Answer any questions the participant may have
- Administer the three instruments in the assigned order, following one of the six codes shown below:
(FF= Feelings Form; SS=Arizona Social Support Inventory Schedule;
SE=Self-Esteem Scale) *See attached sheet
- Schedule the next meeting if possible

Coded Order for Administering Instruments

Code #:	1	2	3	4	5	6
Order : 1st	SS	SE	FF	SS	FF	SE
2nd	SE	FF	SS	FF	SE	SS
3rd	FF	SS	SE	SE	SS	FF

Participant # _____
Interviewer _____

Recording Form

School (if attending): _____ **Last grade completed:** _____

Living with: Parent(s) _____ Guardian _____ Alone _____
Boyfriend _____ Husband _____ Other _____

Marital Status: _____ **Age:** _____

Income (Major Source) _____ **Other income:** _____

Plan for baby: Keeping _____ Relinquishing _____ Undecided _____

Ethnic group: Indian/ _____ Other (non-Canadian) _____
Metis _____

Referred by: _____ **Previous pregnancies:** _____

Prenatal classes (Y/N): _____ **Other prenatal programs:** _____

Stage of pregnancy: _____

Have you tried to make any changes in the way you eat since you became pregnant? (YES or NO) _____

Have you tried to make any changes in smoking, drinking, or drug habits? (YES or NO; if YES, indicate which of these) _____

ADDITIONAL INTERVIEWER COMMENTS: _____

Arizona Social Support Interview Schedule (ASSIS)

In the next few minutes I would like to get an idea of the people who are important to you in a number of different ways. I will be reading descriptions of ways that people are often important to us. Then I will be asking you to give me the first names, initials, or nicknames of the people who fit the description. These people might be friends, family members, teachers, ministers, doctors, or other people you might know.

I will only want you to give me the names of people you actually know and that you have actually talked to during the past month. It's possible, then, that you won't get a chance to name some important people if for one reason or another you haven't had any contact with them in the past month.

If you have any questions about the descriptions after I read each one, please ask me to try and make it clearer.

A. PRIVATE FEELINGS

1. When you want to talk to someone about things that are very personal and private, who do you talk to? Give me the first names, initials, or nicknames of the people that you have talked to during the last month about things that are very personal and private.

___ NOT APPLICABLE (GO TO A3)

PROBE: Is there anyone else that you can think of:

2. During the past month, would you have liked:
 - 1 - a lot more opportunities to talk to people about your personal and private feelings
 - 2 - a few more opportunities
 - 3 - or was this about right?
3. During the past month, how much do you think you needed people to talk to about things that were very personal or private?
 - 1 - not at all
 - 2 - a little bit
 - 3 - quite a bit

B. MATERIAL AID

1. Who are the people that, in the past month, have loaned or given you \$25.00 or more or have loaned you some valuable object that you needed? You can name some of the same people that you named before if they fit this description too or you can name some other people.

___ NOT APPLICABLE (GO TO B3)

PROBE: Is there anyone else that you can think of?

2. During the past month, would you have liked people to have loaned you:
 - 1 - a lot more
 - 2 - a little more
 - 3 - or was it about right?
3. During the past month, how much do you think you needed people who could give or lend you the things that you needed?
 - 1 - not at all
 - 2 - a little bit
 - 3 - quite a bit

C. ADVICE

1. Who have you gone to in the past month when you needed some advice? Remember, you can name some of the same people that you mentioned before or you could name some new people.

___ NOT APPLICABLE (GO TO C3)

PROBE: Anyone else?

2. During the past month, would you have liked:
 - 1 - a lot more advice
 - 2 - a little more advice
 - 3 - or was it about right?
3. During the past month, how much do you think you needed to get advice?
 - 1 - not at all
 - 2 - a little bit
 - 3 - quite a bit

D. POSITIVE FEEDBACK

1. Who are the people that, in the past month, have let you know that they liked your ideas or the things that you did? These might be people you mentioned before or new people.

___ NOT APPLICABLE (GO TO D3)

PROBE: Anyone else?

2. During the past month would you have liked people to tell you they liked your ideas or things that you did?

1 = a lot more often
 2 = a little more
 3 = or was it about right

3. During the past month, how much do you think you needed to have people let you know when they liked your ideas or things that you did?

1 = not at all
 2 = a little bit
 3 = quite a bit

E. PHYSICAL ASSISTANCE

1. Who are the people that, in the past month, have given up some of their time and energy to help you take care of something that you needed to do---things like driving you some place you needed to go, helping you do some work around the house, going to the store for you, and things like that? Remember, you might have listed these people before or they could be new names.

___ NOT APPLICABLE (GO TO E3)

PROBE: Anyone else you can think of?

2. During the past month, would you have liked:

1 = a lot more help with things that you needed to do
 2 = a little more help
 3 = or was it about right?

3. During the past month, how much do you feel you needed people who could pitch in to help you do things?

1 = not at all
 2 = a little bit
 3 = quite a bit

F. SOCIAL PARTICIPATION

1. Who are the people that, in the past month, you got together with to have fun or relax with? These could be new names or ones you listed before.

___ NOT APPLICABLE (GO TO F3)

PROBE: Anyone else?

2. During the past month would you have liked:

1 = a lot more opportunities to get together with people for fun and relaxation

2 = a few more

3 = or was it about right?

3. How much do you think that you needed to get together with other people for fun and relaxation during the past month?

1 = not at all

2 = a little bit

3 = quite a bit

G. NEGATIVE INTERACTIONS

1. Who are the people that, in the last month, you have had some unpleasant disagreements with or that have made you angry or upset? These could be new names or names you listed before.

___ NOT APPLICABLE (GO TO H)

PROBE: Anyone else?

H. PERSONAL CHARACTERISTICS OF NETWORK MEMBERS

Now I would like to get some information about the people you have just listed.

*FOR EACH PERSON ON THE LIST ASK:

1. What is this person's relationship to you?

FOR FAMILY MEMBERS , ASK THE EXACT RELATIONSHIP (mother, brother, etc.)

FOR PROFESSIONAL PEOPLE , ASK THE PROFESSION (teacher, social worker, etc.)

FOR FRIENDS, ALSO BE SPECIFIC (friends from school, agency, or other)

2. Are any of these people the father of your baby? Indicate which person, if listed.

*Example of a Completed ASSIS Sheet

Participant #: 20 Date: 4/20/85 Interviewer: VM

ARIZONA SOCIAL SUPPORT INTERVIEW SCHEDULE

	A	B	C	D	E	F	G	REL
Network Members								
1. DAVID	X		X			X	X	BAO
2. LINDA	X							SIS
3. MOTHER	X				X			MO.
4. FATHER		X			X			FA.
5. RUSS			X	X	X	X		FRIEND
6. JUAN						X		FRIEND
7. LELIN	X	X		X		X		WIFE
8. BUS			X					FRIEND
9. MARY								FRIEND
10. DON								FRIEND
11.								
12.								
13.								
14.								
15.								
Totals	4	2	3	2	3	4	1	
	<u>2.3</u>	<u>2.2</u>	<u>2.3</u>	<u>2.3</u>	<u>2.3</u>	<u>2.3</u>		
	<u>3.2</u>	<u>3.2</u>	<u>3.2</u>	<u>3.1</u>	<u>3.1</u>	<u>3.3</u>		

Notes on deriving network indices from the ASSIS

To understand the scoring instructions described below, it will be useful to refer to the example of a completed network answer sheet.

1. Total network size: This is the number of network members who actually provided at least one form of social support during the preceding month. In other words, this is the number of individuals named by the respondent at least once.
2. Support satisfaction: This score is obtained by summing the item #2 responses from the support categories A-F. On the answer sheet you can see these scores recorded at the bottom of each column. This score is 17 in the example.
3. Support need: Similarly, this score is simply the sum of responses for item #3 in each of the support columns A-F. In the example this score is 11.
4. Conflicted network size: This is the number of network members who, in the past month, are a source of both support and interpersonal conflict. In other words, this is the number of individuals who have a check mark in column G.

Self-Esteem Scale

INTERVIEWER NOTES

1. EXPLAIN THE INSTRUMENT:

"What I'll be asking you to do, as you read each question, is to think of yourself, as a person. Then you will circle the best response to the question."

- 2. READ QUESTION 1** and the responses.
Wait for the subject to circle a response.

3. EXPLAIN QUESTION 2:

"In the next questions, I'll be asking you how you see yourself, not how satisfied you are with what you see. Again, circle the best answer for each question."

N.B. You may read the first item and, if they have no difficulty in responding, then allow them to proceed on their own to complete Q-2.

- 4. READ QUESTION 3 & INSTRUCTIONS.** Add the following explanation:

"Put a 3 if you think it is something that is very important to how you feel about yourself on the whole."

"Put a 2 if you think it is something that is somewhat important to how you feel about yourself on the whole."

"Put a 1 if you think it is something that is not very important to how you feel about yourself on the whole."

5. ASK IF THERE ARE ANY QUESTIONS.

- 6. ASSIST THEM WITH THE FIRST ITEM** and, if they have no difficulty in responding, allow them to proceed on their own to complete Question 3.

f. How much common sense do you have for dealing with day-to-day living?

A GREAT DEAL A FAIR AMOUNT SOME NOT TOO MUCH NOT MUCH AT ALL

g. How much can you rely on yourself when problems arise rather than turning to others?

NOT MUCH AT ALL NOT TOO MUCH SOMEWHAT A FAIR AMOUNT A GREAT DEAL

h. How well do you handle important decisions in your life?

VERY WELL PRETTY WELL WELL NOT TOO WELL NOT WELL AT ALL

i. How easily are you able to establish a good relationship with males?

VERY DIFFICULT DIFFICULT NEITHER EASY EASY VERY EASY

3 HOW IMPORTANT IS EACH OF THE ITEMS BELOW TO HOW YOU FEEL ABOUT YOURSELF ON THE WHOLE?

MARK YOUR ANSWERS ON THE BLANK LINES BESIDE EACH ITEM

USE THIS KEY : 3 Very important

2 Somewhat important

1 Not very important

- ___ a. To be able to do the things that are expected of you at this stage in your life
- ___ b. To be able to get along with other people
- ___ c. To be able to establish a good relationship with other females
- ___ d. To be able to handle set-backs and disappointments
- ___ e. To be interesting to other people
- ___ f. To have common sense for dealing with day-to-day living
- ___ g. To rely on yourself when problems arise, rather than turning to others
- ___ h. To handle important decisions in your life
- ___ i. To be able to establish a good relationship with males

Verbal Instructions for Self-Esteem Scale (Interviewer notes)

"What I'll be asking you to do, as I read each question, is to think of yourself, as a person. Then you will circle the best response to the question"

READ QUESTION 1 and Responses and wait for subject to circle a response.

"In the next questions, I'll be asking how you see yourself, not how satisfied you are with what you see. Again, circle the best answer for each question"

READ QUESTIONS 2 a - i . Pause after each question, allowing the respondent to circle the answer.

"Please go through the questions one more time. This time mark on the line beside each question how important each point about yourself is to your overall feeling about yourself. That is, when you think about yourself, on the whole, how important is each one of the points? Use the key on the last page.

Put a 3 if you think it is something that makes a big difference to how good or bad you feel about yourself on the whole.

Put a 2 if you think it is something that makes some difference to how good or bad you feel about yourself on the whole.

Put a 1 if you think it is something that makes very little difference to how good or bad you feel about yourself on the whole.

"Are there any questions?"

*Original Version

1. How satisfied are you with yourself at this point in your life?

VERY SATISFIED SATISFIED NEITHER SATISFIED NOR DISSATISFIED DISSATISFIED VERY DISSATISFIED

2. HOW WOULD YOU DESCRIBE YOURSELF IN TERMS OF:

___ a. How well you are able to do the things that are expected of you at this stage in your life?

VERY WELL PRETTY WELL WELL NOT TOO WELL NOT WELL AT ALL

___ b. How well you are able to get along with other people?

VERY WELL PRETTY WELL WELL NOT TOO WELL NOT WELL AT ALL

___ c. How easily you are able to establish a good relationship with someone of the same sex?

VERY EASY EASY NEITHER EASY NOR DIFFICULT DIFFICULT VERY DIFFICULT

___ d. How well you are able to handle setbacks and disappointments?

VERY WELL PRETTY WELL WELL NOT TOO WELL NOT WELL AT ALL

___ e. How interesting you are to other people?

VERY INTERESTING PRETTY INTERESTING A BIT INTERESTING NOT TOO INTERESTING NOT INTERESTING AT ALL

___ f. How much common sense you have for dealing with day-to-day living?

NOT MUCH AT ALL NOT TOO MUCH SOME A FAIR AMOUNT A GREAT DEAL

___ g. How much you can rely on yourself when problems arise, rather than turning to others?

A GREAT DEAL A FAIR AMOUNT SOMEWHAT NOT TOO MUCH NOT MUCH AT ALL

___ h. How well you handle important decisions in your life?

VERY WELL PRETTY WELL WELL NOT TOO WELL NOT WELL AT ALL

___ i. How easily you are able to establish a good relationship with someone of the opposite sex?

VERY EASY EASY NEITHER EASY NOR DIFFICULT DIFFICULT VERY DIFFICULT

Self-Esteem (cont.)

3. MARK ON THE BLANK LINES HOW IMPORTANT EACH POINT ABOUT YOURSELF IS TO YOUR OVERALL FEELING ABOUT YOURSELF.

USE THIS KEY:

3 It makes a big difference

2 It makes some difference

1 It makes very little difference

- ___ a. How well you are able to do the things that are expected of you at this stage in your life
- ___ b. How well you are able to get along with other people
- ___ c. How easily you are able to establish a good relationship with other females
- ___ d. How well you are able to handle setbacks and disappointments
- ___ e. How interesting you are to other people
- ___ f. How much common sense you have for dealing with day-to-day living
- ___ g. How much you can rely on yourself when problems arise, rather than turning to others
- ___ h. How well you handle important decisions in your life
- ___ i. How easily you are able to establish a good relationship with males.

Participant # _____

Interviewer _____

FEELINGS FORM

This form is to find out your feelings about your pregnancy and your baby.

Please mark the form like this:

Make a check (✓) on one of the 7 spaces between the two words, depending on how closely the word fits for you.

For example: If you see your pregnancy as being quite sad...

sad $\frac{\quad}{1} : \frac{\checkmark}{2} : \frac{\quad}{3} : \frac{\quad}{4} : \frac{\quad}{5} : \frac{\quad}{6} : \frac{\quad}{7}$ happy

1 = extremely

4 = neutral or
doesn't fit

5 = slightly

2 = quite

6 = quite

3 = slightly

7 = extremely

BABY

I consider my baby to be:

sad	___ : ___ : ___ : ___ : ___ : ___ : ___	happy
	1 2 3 4 5 6 7	
unfriendly	___ : ___ : ___ : ___ : ___ : ___ : ___	friendly
	7 6 5 4 3 2 1	
perfect	___ : ___ : ___ : ___ : ___ : ___ : ___	imperfect
	1 2 3 4 5 6 7	
healthy	___ : ___ : ___ : ___ : ___ : ___ : ___	unhealthy
	7 6 5 4 3 2 1	
foolish	___ : ___ : ___ : ___ : ___ : ___ : ___	wise
	1 2 3 4 5 6 7	
dirty	___ : ___ : ___ : ___ : ___ : ___ : ___	clean
	7 6 5 4 3 2 1	
graceful	___ : ___ : ___ : ___ : ___ : ___ : ___	awkward
	1 2 3 4 5 6 7	
successful	___ : ___ : ___ : ___ : ___ : ___ : ___	unsuccessful
	7 6 5 4 3 2 1	
unimportant	___ : ___ : ___ : ___ : ___ : ___ : ___	important
	1 2 3 4 5 6 7	
beautiful	___ : ___ : ___ : ___ : ___ : ___ : ___	ugly
	7 6 5 4 3 2 1	
negative	___ : ___ : ___ : ___ : ___ : ___ : ___	positive
	1 2 3 4 5 6 7	
good	___ : ___ : ___ : ___ : ___ : ___ : ___	bad
	7 6 5 4 3 2 1	

PREGNANCY

I consider my pregnancy to be:

good _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

bad

negative _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

positive

beautiful _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

ugly

unimportant _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

important

successful _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

unsuccessful

graceful _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

awkward

dirty _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

clean

foolish _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

wise

healthy _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

unhealthy

perfect _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

imperfect

unfriendly _____ : _____ : _____ : _____ : _____ : _____ : _____
 7 6 5 4 3 2 1

friendly

sad _____ : _____ : _____ : _____ : _____ : _____ : _____
 1 2 3 4 5 6 7

happy

GENERAL PERCEPTIONS OF SUPPORT
-QUESTIONS TO USE AS A GUIDE-

1. Do you think that getting support from other people during pregnancy is important or not so important?

Why/Why not?

2. What are your ideas of the kind of support most needed by girls in your situation?
3. How has the support you received during pregnancy been helpful or not so helpful?
4. What kind of services for pregnant teens would you like to see more of?
5. Has your overall outlook on pregnancy been positive or negative?

During your pregnancy did your outlook change? IF YES: More positive or more negative?

6. Do you feel that the kind of information you were asked to give during the interviews showed how you really feel about the support you received during pregnancy and your true feelings about pregnancy?
7. Is there anything about the support you received during pregnancy that you would like to add?

Appendix B
BACKGROUND INFORMATION ON STUDY PARTICIPANTS

Participant 7A

The participant's father, who imagined she was the result of his wife's infidelity rejected and mistreated her. When she was four years old, the father deserted the family. She has a twin sister, with whom she is described as having a love-hate relationship. The pair were taken into a receiving home which further angered the participant. She was again rejected three years later when, after she and her twin were adopted, the adoptive parents sent her back to the receiving home one year later, and kept the other twin. The adoptive parents displayed physical and emotional affection towards her, which may have caused the participant some confusion, under the circumstances. She later became involved in prostitution.

Participant 10A

As an infant, Participant 10A was adopted, which became an emotional issue for her. She had experienced family

problems, including an alcoholic, temperamental father. Two years prior to her pregnancy, she was referred to a psychiatrist due to a suspicion of hypochondria.

The father of the child was reported to have physically abused her in the past but spent much time with her and was supportive during her pregnancy. The relationship was described by Lindenview's social worker as being unstable.

Participant 3B

Participant 3B may be more appropriately regarded as a refusal rather than a drop-out, as she had not received much information prior to the first visit and when she discovered that she would be interviewed over several months, which may have been inconvenient because she was living with an older couple, she opted to withdraw her participation after the first interview.

She was 19 years old, had completed Grade 10, and was described as neat, confident, and pleasant. Her cultural background was Metis. She was supported by her boyfriend.

Her network was four persons, including the father of the child, her mother, and two girlfriends. Her mother was listed as a source of material aid and her boyfriend as providing physical assistance as well as negative interactions. Support satisfaction and support need were both moderate.

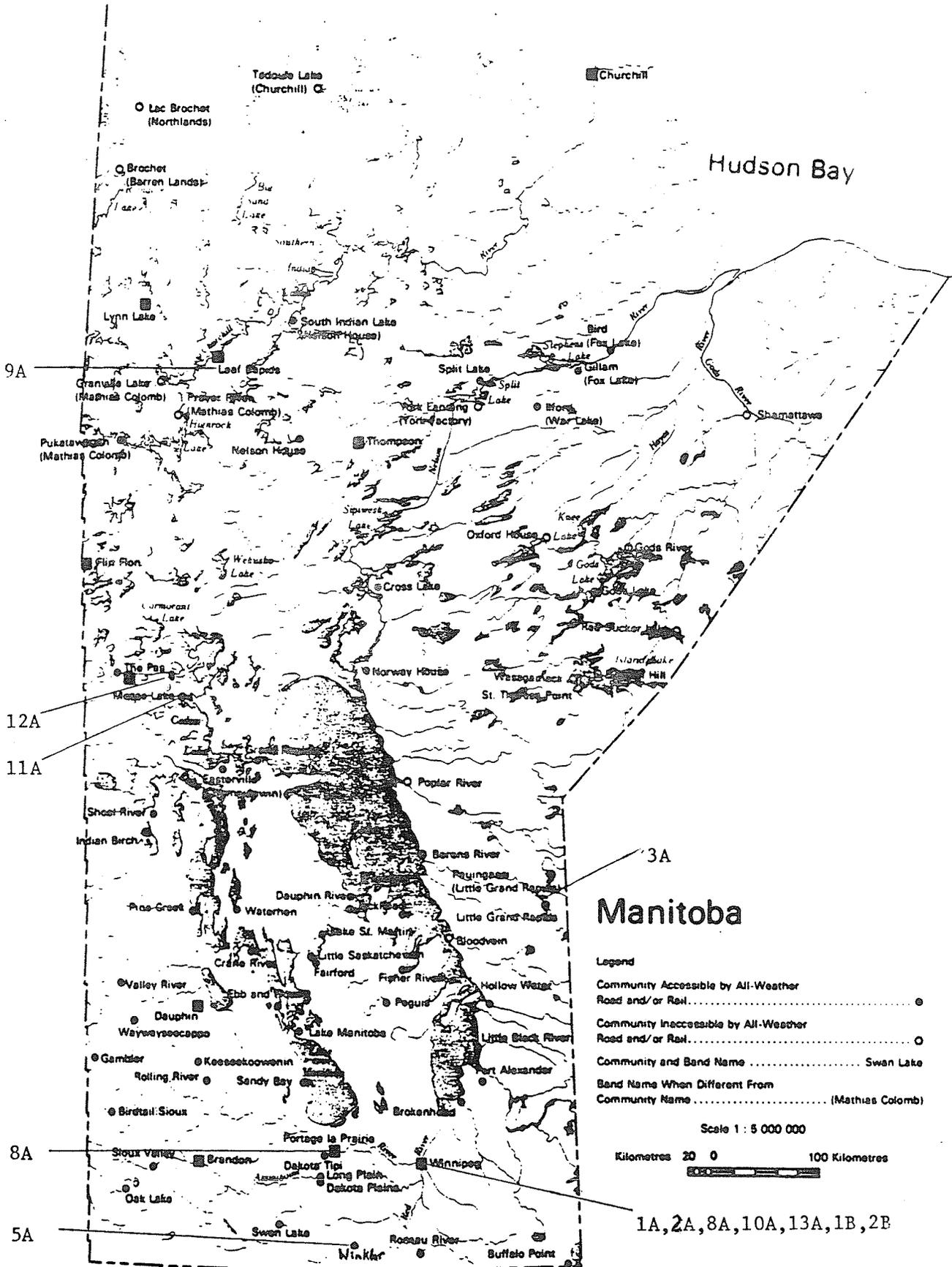
A high score (4) was indicated for global self-esteem. The non-weighted total score was in the same range and the weighted total score was slightly lower. Both subscores were in a similar range. Self-reliance and handling decisions were the only items rated as very important to self-esteem.

Attitude towards both pregnancy and baby were quite positive.

Appendix C

LOCATION OF PARTICIPANTS HOME COMMUNITIES

LOCATION OF PARTICIPANTS' HOME COMMUNITIES



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