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WOMENS CHANGING ATTITUDE TOWARD THEIR BODY IMAGE
DURING PREGNANCY AND THE POSTPARTUM PERIOD

by

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A THESIS

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Abstract

The purpose of this study was to describe women's attitudes to their body image during the postpartum period and to compare them to their attitudes to their body image prior to and during pregnancy.

A non-random, convenience sample of 63 women between the ages of 18 and 40 inclusive was investigated. Of this sample 33 were multiparas and 30 were primiparas. The research design was a repeated measures design of the postpartal woman's attitude to body image at two and six weeks postpartum. The data on prepregnant and the pregnant attitude to body image were collected retrospectively during the two week postpartum visit. The Attitude to Body Image Scale (ABIS), a modified version of Jourard's Body Cathexis Scale (Jourard & Secord, 1955), was used to identify the attitude to body image. An assessment of its validity and reliability was conducted prior to its use in the main study.

It was found that most of the subjects of this study indicated a slightly positive attitude to their body image in the postpartum period. There was no significant difference between body image attitude of the total group at two weeks and at six weeks postpartum. Primiparas felt more negative about their postpartal body image than did the multiparas ($p < .03$). The women in the study felt more negative about their bodies during the last three months of pregnancy than they did prior to the onset of pregnancy ($p < .01$). They indicated a more

negative feeling about their body image in the postpartum period than they did prior to the onset of pregnancy ($p < .01$); and they felt more positive about their body image in the postpartum period than they did during the last three months of their pregnancy ($p < .04$).

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11. DESIGN AND PROCEDURES	20
Study Design	28
Instruments	29
Attitude to Body Image Scale (ABIS)	29
Pretest of the ABIS	31
Validity	33
Reliability	37
Population and Sampling Design	38

T A B L E O F C O N T E N T S

Chapter		Page
I.	THE PROBLEM	1
	Background to the Study	2
	Objectives	4
	Relevance to Nursing	5
	Operational Definitions	6
	Theoretical Framework and Literature Review ...	7
	Crisis Theory	9
	Body Image	12
	Body Perception	14
	Body Attitude	17
	Summary	24
	Research Questions	26
II.	DESIGN AND PROCEDURE	28
	Study Design	28
	Instrument	29
	Attitude to Body Image Scale (ABIS)	29
	Pretest of the ABIS	31
	Validity	31
	Reliability	32
	Population and Sampling Design	33

Chapter	Page
Procedures	34
Method of Analysis	36
Ethical Considerations	37
III. RESULTS AND CONCLUSIONS	39
Validity of the ABIS	39
Reliability of the ABIS	39
Study Sample	41
Findings	41
Research Question 1	43
Research Question 2	48
Research Question 3	48
Research Question 4	49
Subquestion 1	51
Subquestion 2	51
Subquestion 3	53
IV. DISCUSSION OF FINDINGS	55
Discussion	55
Attitude to Body Image of Postpartal Women	56
Comparison of Body Image Attitude at Two and Six Weeks	58
Comparison of Body Image Attitude Between Multiparas and Primiparas	59

Chapter	Page
Comparison of Body Image Attitude at the Prepregnant, Pregnant, and the Postpartal Period	60
Implications of Findings	63
Limitations of the Study	67
Suggestions for Future Research	68
V. SUMMARY	70
Frequency Count of Body Attitude Scores within the Three Categories ***** Six Weeks Postpartum	46
REFERENCES	74
APPENDIX A	79
APPENDIX B	81
APPENDIX C	87
APPENDIX D	91
APPENDIX E	93
APPENDIX F	95
Direction of Difference between Prepregnant, Pregnant, and Postpartal Attitude to Body Image	97

L I S T O F T A B L E S

Table	Page
1. Internal Consistency Reliability Measurements of ABIS	42
2. Median and Interquartile Range of Body Attitude Scores of Women at Two and Six Weeks Postpartum	44
3. Frequency Count of Body Attitude Scores Within the Three Categories at Two and Six Weeks Postpartum	46
4. Frequency Count of the 'High' Category of Body Attitude Scores within Three Categories at Two and Six Weeks	47
5. The Postpartum Median and Mean Scores of Multiparas and Primiparas at Two weeks and Six Weeks of the Postpartum Period	50
6. The Wilcoxon Matched-Pairs Analyses of the Direction of Difference Between Prepregnant, Pregnant, and Postpartal Attitude to Body Image	52

LIST OF FIGURES

Figure	CHAPTER I	Page
1. Flow Chart of Theoretical Framework Development		11

THE PROBLEM

The purpose of this study was to describe women's changing attitudes to their body image during the postpartum period and to compare these to their attitudes to their body image prior to and during pregnancy. Weinberg (1978) and more (1978) state that the idealized female body is valued in our society. However, the changes that occur to the body because of pregnancy reflect that the woman is perhaps further from the ideal body than she has ever been before. After delivery, the woman's body still appears pregnant (Anwar, 1980). For many women this is a very dissatisfying experience (Leifer, 1977). This dissatisfaction with the body has been identified as one of the factors which contribute to the critical nature of the postpartum period (Russell, 1974; Anwar, 1981).

Study of the attitudinal component of body image in the postpartum period may, therefore, provide further insight into how women feel about their postpartum bodies. This insight will be useful in the sense of helping the woman to better understand her concerns about her body during the postpartum period. If nurses can facilitate the woman's understanding about her body during the postpartum period this nurse may be able to have a significant contribution in assisting that woman towards a resolution to the crisis of the postpartum period.

CHAPTER I

THE PROBLEM

The purpose of this study was to describe women's changing attitudes to their body image during the postpartum period and to compare them to their attitudes to their body image prior to and during pregnancy. Weinburg (1978) and Moore (1978) state that the idealized female body is valued in our society. However, the changes that occur to the body because of pregnancy reflect that the woman is perhaps further from the ideal body than she has ever been before. After delivery, the woman's body still appears pregnant (Becker, 1980). For many women this is a very dissatisfying experience (Leifer, 1977). This dissatisfaction with the body has been identified as one of the factors which contribute to the critical nature of the postpartum period (Russell, 1974; Mercer, 1981).

Study of the attitudinal component of body image in the postpartum period may, therefore, provide further insight into how women feel about their postpartal bodies. This insight will be useful to the nurse in helping the woman to better understand her concerns about her body during the postpartum period. If nurses can facilitate the woman's understanding about her body during the postpartum period then nurses may be able to make a significant contribution in assisting that woman towards a resolution to the crisis of the postpartum period.

Background to the Study

The postpartum period, the first six weeks following the birth of the baby, is laden with many myths about motherhood; for example, the transition to parenthood is natural and smooth (Becker, 1980); mothers inherently know how to soothe and care for babies, mothers are serene in their caring and giving, never asking for anything in return (Lovell and Fiorino, 1979). In reality, many mothers experience something very different from the idealized state these myths present.

The new mother is confronted with a newborn, who is a stranger to her regardless of how much the baby had been anticipated, and with the responsibility of 24 hour care (Carlson, 1976). Her body, although not pregnant anymore, is not the body she appeared to have prior to pregnancy. The postpartal woman can best be described as appearing five months pregnant (Becker, 1980). This, together with the fatigue and discomfort associated with the physical restoration process she is undergoing and the readjustment which must occur with her family can leave the new mother frustrated and overwhelmed. Leifer (1977) indicates that, in her study on 19 primigravidas, the subjects perceived the early period of parenthood as a crisis exceeding that of pregnancy.

Within this general context, a number of studies have indicated that the postpartal woman's perception of herself, and particularly her body, is a specific component which contributes to the critical nature of the postpartum period. Grubb (1980) studied the perception of time by multiparous women, in relation to themselves and others during the

first postpartal month. The statements made by her eight subjects indicated that they had less time for themselves than for any other member of the family. That is, by the time a new mother had met her responsibilities to her family she had no time left for herself. Gruis (1977) in an exploratory study of the expressed concerns of 40 multiparas and primiparas indicated that the mother's concern about herself, in particular the return of her figure to normal, exceeded her concern about the management of her family and the care of her infant. Harrison and Hicks (1980), in a replication of this study, using 158 multiparas and primiparas, had essentially the same findings. Bull (1981) examined the change in the focus of concerns of primiparas after one week at home with their infants. 'Moderate' to 'much' concern relating to physiological changes in their own bodies persisted in the sample of thirty primiparas. Moss (1981) in an exploratory study, attempted to identify the areas of concern multiparas had in the immediate postpartum period. The 56 multiparas in her sample ranked concerns about themselves relatively low except for 'weight' and 'return of figure to normal'. These two items ranked in the top five as major areas of worry or concern.

Russell (1974), studied 272 couples to determine the differences between husbands and wives in terms of their reaction to the early adjustment to parenthood. She found that the wives most frequently indicated "worry about personal appearance since the birth of the baby", "physical tiredness and fatigue", and worry about "my loss of figure" as problem areas. Hobbs and Cole (1976) did a study of 65 couples, evaluating an index, developed by Hobbs, to measure the amount of difficulty

reported by parents in adjusting to their first child. They identified the wife's personal appearance in general, and worry about her "loss of figure" as two of ten most discriminating items indicating the degree of difficulty experienced by parents in the postpartum period.

It appears evident, then, that the woman's perception of her body image is a significant factor which contributes to the critical nature of the postpartal period. However, the studies cited make only general statements about the fact that the postpartal woman is concerned about her body. Therefore, the objectives of this study have been formulated to explore this question further.

Objectives

Based upon the background discussed in the previous section, the objectives of this research study are:

1. to identify the woman's attitude to her body image during the six week postpartum period.
2. to identify whether the woman's attitude to her body image changes within the six week postpartum period.
3. to identify whether there is a difference in the attitude to body image between primiparas and multiparas within the postpartum period.
4. to identify whether there are associations between prepregnant, pregnant and postpartal attitudes to body image in postpartum women.

Relevance to Nursing

A number of authors (LeMasters, 1957; Dyer, 1963; Rossi, 1968; Melchior, 1975; Leifer, 1977) have described the postpartal transition into parenthood as a period of crisis. Russell (1974) has indicated that the woman's concern about her body and loss of figure is one of the contributing factors to the critical nature of the puerperium. Caplan (1964) has indicated that a crisis can have one of two consequences; it can facilitate personal growth or it can increase the individual's vulnerability toward mental breakdown. Nursing is one of the few professions involved with the care of the postpartal woman beyond the period of hospitalization. If nurses are to be effective in terms of promoting personal growth and preventing mental breakdown they must have more detailed knowledge about the specific concerns of the postpartum woman. The literature seems to indicate that one of these concerns is focused on her perception of her body image.

Sheehan (1981) has indicated that it is important to go beyond the point of just viewing the new mother in relation to her baby. The postpartal woman must be understood as a person in her own right. If one of her major concerns is her body, it would seem appropriate to try to develop a better understanding of the concept of postpartal body image. It is only through a more detailed investigation of this specific concept that nurses will be able to be more effective in helping women gain a better understanding of themselves and how they feel about their bodies during the postpartum period. If nurses can assist the woman in

gaining more insight into her own feelings concerning her body then nurses may be able to make a significant contribution toward facilitating a resolution to the crisis of the postpartum period for that woman.

Operational Definitions

1. Attitude to body image: the feelings and emotional expressions of satisfaction or dissatisfaction with the person's body as measured by the Attitude to Body Image Scale (ABIS), modified by the investigator from the Jourard Body-Cathexis Scale (Jourard & Secord, 1955).
2. Postpartum period: the six week period that follows the delivery of a newborn.
3. Prepregnant period: the time just prior to the onset of the current pregnancy.
4. Pregnant period: the last trimester of pregnancy.
5. Primipara: a woman who has given birth to her first living baby.
6. Multipara: a woman who has given birth to two or more living babies.
7. Vaginal delivery: the birth of a fetus through the vagina.
8. Episiotomy: incision into the perineum, during the second stage of labor, to facilitate the delivery of the fetus.

Theoretical Framework and Literature Review

The theoretical framework of this study was developed within the context of crisis theory. The concept of body image, as it relates to the postpartal woman, was viewed from within this crisis theory perspective and formed the basis for the literature review. A number of authors (LeMasters, 1957; Dyer, 1963; Rossi, 1968; Melchior, 1975; Leifer, 1977) have described the postpartal transition into parenthood as a period of crisis. Caplan (1964) defined crisis as a time in which there is an imbalance between the difficulty and importance of a problem and the resources immediately available to deal with it. LeMasters (1957) studied 46 middle class couples to test the hypothesis that the arrival of the first child could be experienced as a critical event. Of this group, 83% found the transition to parenthood to be of crisis proportions. Dyer (1963), who replicated the study, essentially had similar results.

Rossi (1968) identified five basic reasons why the onset of parenthood, and specifically motherhood, is so stressful. First, there is tremendous cultural pressure on the woman to seek adult fulfillment and identity in motherhood. Second, pregnancy can be initiated involuntarily and once initiated is relatively difficult to terminate. Third, the major transition point in terms of roles, which traditionally occurred at marriage, now occurs at the time of the first pregnancy. Fourth, parenthood, once it has occurred, is irreversible. And fifth, the preparation for parenthood in the North American society is sadly

lacking. The abruptness of the role change, together with little concrete preparation for that role and with an increasing emphasis on mental health, sociability, and adjustment as being the functions of the family (Duvall, 1971), has created the critical nature of beginning parenthood.

However, Rossi makes no mention of the fact that the body of the woman has been subjected to the massive upheaval of giving birth and that this could be another major factor in creating the critical nature of the postpartum period. Although the upheaval is a physiological one, there are few if any circumstances in which such marked rapid catabolic events take place in the absence of disease (Hellman, 1971). These massive physiological alterations could influence the psychological functioning of the woman (Caplan, 1961).

Paschall and Newton (1976) provide an indication of the upheaval that occurs in the psychological functioning of the postpartal woman. These authors did an exploratory study of the psychological state of 106 new mothers in the postpartum period. They found a high incidence of crying, irritability, and "feeling blue" among the women. This could easily be associated with poor mental health. However, their measurements of the mothers' neuroticism suggested unusually stable individuals. The Neuroticism Scale Questionnaire, which defines neuroticism as those personality characteristics which differentiate between clinically judged neurotics and normals, was used as the measure of neuroticism.

It is evident, then, that the period following the birth of a baby

is seen by many authors as a time of upheaval and disequilibrium for the mother, approaching that of a crisis.

Crisis Theory

Caplan (1964) states that a crisis occurs when there is an imbalance between the difficulty and importance of the problem and the resources immediately available to deal with it. This results in a rise in frustration, signs of anxiety, disorganization of function, and a period of protracted emotional upset for the individual.

Caplan (1964) further states that crisis can be either maturational or situational. Maturational crises have been described as the stages of the normal life cycle and the periods of physical, psychological and social change which are accompanied by disturbances in thought and feeling. Examples are adolescence and marriage. Situational crises, on the other hand, are those stressful events which occur in the environment, are caused by external factors and are often sudden and unfortunate. Examples are the sudden illness and/or death of a loved one.

Some authors (Melchior, 1975; Hobbs & Cole, 1976) have identified the onset of parenthood as developmental while others (Rossi, 1968; Clark and Alfonso, 1979) have felt that it was more of a situational crisis. Because there can be significant overlap between the two types of crisis in many critical life situations, it is difficult to determine precisely whether a particular crisis belongs to one or the other category. The onset of parenthood has features of both. For the purpose of this study, the onset of parenthood was considered to be a crisis - it

was not further classified as being developmental or situational.

Caplan (1964) further states that crisis is characteristically self-limiting in a temporal sense and lasts from four to six weeks. This transitional period can provide the individual with the opportunity for personal growth. It is also a period of increased vulnerability to mental disorder. How the individual resolves the crisis depends on three factors: the person's perception of the event, the quality and quantity of the support systems, and the individual's coping mechanism. In the development of the theoretical framework of this study only the postpartal woman's perception of the event will be considered in detail; see Figure 1 following.

Grubb (1980), in a study of eight multiparas, identified four basic components of how the woman perceives her situation in the postpartum period. These were herself as a person, her new infant, her relationship with her immediate family and her physical environment (household). The women in Grubb's study indicated that the greatest concerns, in terms of the number of statements made during interviews, were about self, the baby, the other children, the household and finally the husband, in that order.

Grubb (1980) stated further, in the discussion of her findings, that the women were intensely involved in attempting to reorganize their lives which were so disrupted by the birth of the new baby. The infant had to be integrated into the family constellation, the mothers had to become acquainted with their infants, they had to recover from a major physiological upheaval, and they had to reintegrate their changed and

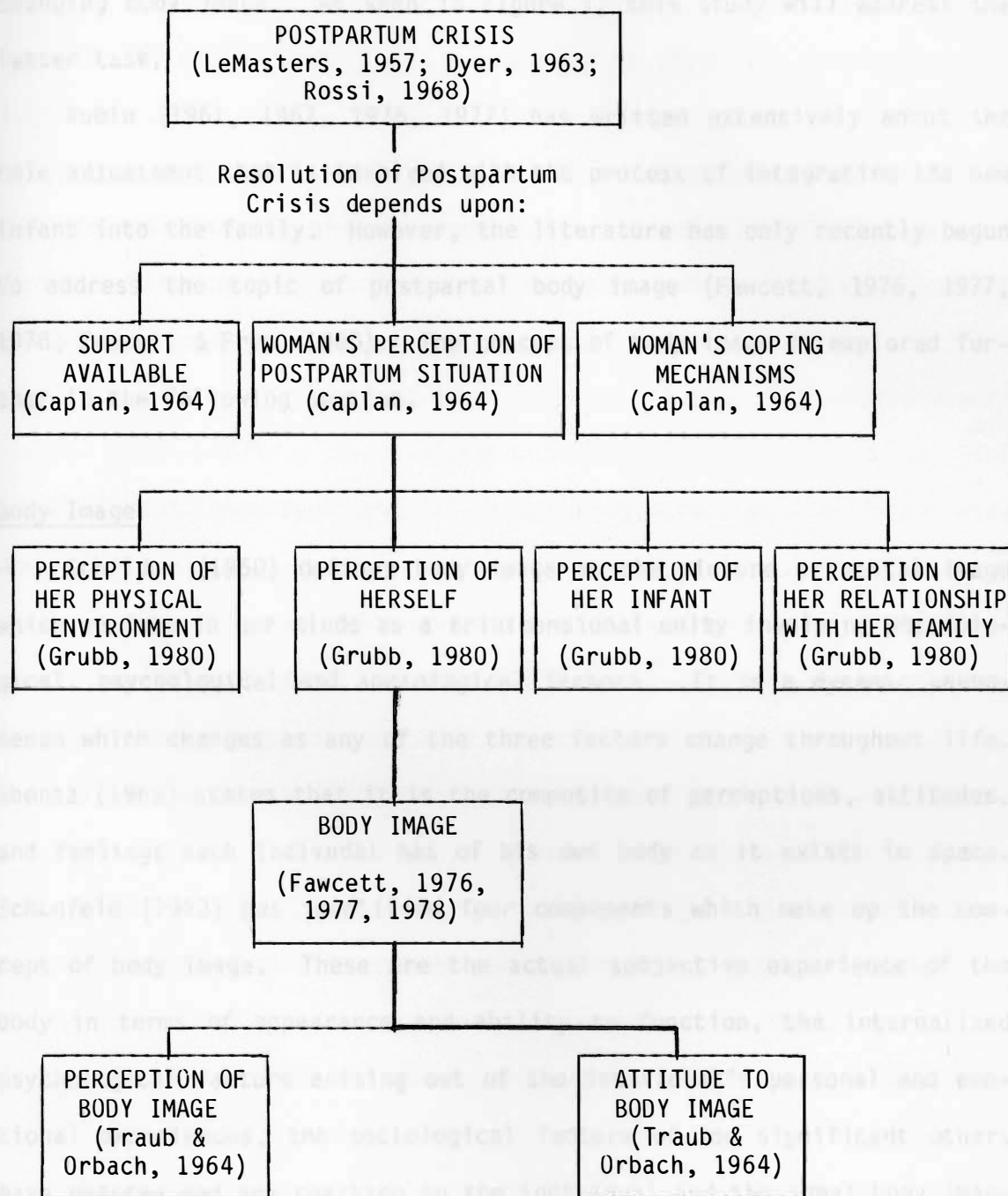


Figure 1

Flow Chart Of Theoretical Framework Development

changing body image. As seen in Figure 1, this study will address the latter task.

Rubin (1961, 1967, 1975, 1977) has written extensively about the role adjustment that is involved with the process of integrating the new infant into the family. However, the literature has only recently begun to address the topic of postpartal body image (Fawcett, 1976, 1977, 1978; Fawcett & Frye, 1980). The concept of body image is explored further in the following section.

Body Image

Schilder (1950) defines body image as the picture or mental image which we form in our minds as a tridimensional unity involving physiological, psychological and sociological factors. It is a dynamic phenomenon which changes as any of the three factors change throughout life. Shontz (1969) states that it is the composite of perceptions, attitudes, and feelings each individual has of his own body as it exists in space. Schonfeld (1963) has identified four components which make up the concept of body image. These are the actual subjective experience of the body in terms of appearance and ability to function, the internalized psychological factors arising out of the individual's personal and emotional experiences, the sociological factors of how significant others have reacted and are reacting to the individual and the ideal body image formulated by the individual's interaction with the bodies of other persons.

Schontz (1975) refines this broad conceptualization by saying that

the body is experienced at four levels. Level one consists of the body schemata, or the perception of the body as an object in space which has a physiological basis. Level two is made up of the self-environment boundary and personal space. At this level the individual identifies what is happening to him and what is not. Level three is called body fantasy which constitutes the fantasies the individual develops about his own body. Level four, or body concept, is made up of the cognitive component of the body experience. In other words, as the individual learns about his body he develops increasing self-understanding. The experience of these four levels, says Shontz, occurs as a differentiated whole. "The various levels are hierarchically organized and effect each other in the same way that parts of any structured system effect each other" (p. 71). However, Fawcett (1977) says that there are no measures of this wholistic approach to body image.

Traub and Orbach (1964) state that frequently there is a confounding of the direct perception of the physical appearance of the body with the thoughts, images, and attitudes one has regarding the body. They have identified two independent dimensions of this wholistic approach which could facilitate a more empirical approach to the study of body image. The first dimension is the perception of body image which refers to the direct mental experience of the physical appearance of the body. This encompasses surface depth and postural mental pictures of the body and is measured by observation methods and projectives techniques. The second is the attitudinal dimension which encompasses a broad spectrum of feelings, attitudes, and emotional reactions toward the body. Body

attitude represents the individuals' valuation of their bodies and is determined by interviews and attitude scales. Fawcett and Frye (1980) indicate that researchers are forced to use these two dimensions of body image since no measure of body image as a whole exists.

The literature review will be organized in relation to the two dimensions of body image, body perception and body attitude. Although this study is concerned with body attitude and the postpartum period, the dimension of body perception is included because it provides relevant information to the understanding of the interrelationship between the two.

Body Perception. Body perception refers to the direct mental experience of the physical appearance of the body. It includes surface, depth, and the postural mental picture of the body. Fisher & Cleveland (1965) indicate that a person's attitude toward his body influences his perception of it. The studies cited in the following section examine the dimension of the body perception. All studies cited seem to indicate that body attitude influences body perception although none studied body attitude specifically. Many of these studies used non-pregnant adults as subjects. However, these studies are significant to this study because they facilitate understanding of some of the fundamental issues of body perception.

Glucksman and Hirsch (1969) followed six severely obese adult subjects during their period of hospitalization for weight reduction. They used a body-sizing apparatus to measure the body size perception of

each subject before, during and following weight loss. The body sizing apparatus was a camera type instrument which allowed the experimenter to distort the subjects actual image in two directions - obese and thin. The midpoint on the continuum was the undistorted image and the calibrations on either side consisted of 10 equal units. There was no record of validity or reliability for the apparatus. Although the sample size was small, the most striking observation was that the subjects increasingly overestimated their own body size during weight loss. Prior to weight loss, however, the group slightly underestimated their actual size.

Schlacter (1971), in a sample of 200 young female subjects, explored the hypothesis that the difference between actual body space and perceived body space would be greater as the subject's anxiety level increased. Anxiety was measured by using the IPAT Anxiety Scale Questionnaire. This scale "measures total anxiety by combining a score for covert, or unrealized anxiety with a score for overt, or symptomatic anxiety" (p. 29). The actual body space was measured as the shoulder width. The perceived body space was measured by the topographic device which was developed by Schlacter. The device consisted of a seven foot square sheet of mylar, covered with concentric circles ranging from 11 to 72 inches in diameter. The subject stood in the centrally located circle and was asked to identify his perceived body space by means of the designated circles, or areas between circles. Fawcett and Frye (1980) reported that the device had face validity. In testing a modified version of the device, the one week interval test-retest

reliability coefficient was .74. Schlacter indeed found that the difference between actual body space and perceived body space was greater as the subject's anxiety level increased. In fact, when the anxiety variable was eliminated from the analysis, there was still a significant difference between the mean scores of the actual body space and perceived body space.

In an incidental finding, Schlacter (1971) indicated, that her three markedly obese subjects underestimated their perceived body space, as compared to the actual shoulder width body measurement. This finding, again based on a very small sample size, is interesting because it is similar to the finding of Gluckman and Hirsch (1969) in that Gluckman and Hirsch's obese subjects also underestimated their body size prior to weight loss.

Chodil (1979), in her study of 86 college women between the ages of 20-35, hypothesized that perceived body space deviates from actual body space. This hypothesis which is congruent with Schlacter's findings was supported. Again, the topographic device (Schlacter, 1971) was used to measure perceived body space, and shoulder width was used to measure actual body space.

Fawcett (1977) hypothesized that spouses' patterns of change in perceived body space during and after pregnancy would be similar. In her study of 40 husband/wife dyads this hypothesis was not supported. She found that the pattern of change in perceived body space, using the topographic device as a measurement, for the subjects from the eighth month of pregnancy through to the second postpartal month was not

consistent with the observed outward change in form and appearance. For the women, the perceived body space increased progressively during the last two months of pregnancy. During the first month postpartum perceived body space decreased markedly and then increased slightly during the second month postpartum. For the husbands the perceived body space of their own bodies increased during pregnancy and decreased during the first postpartum month but continued to decrease reaching the lowest level during the second postpartum month. Fawcett (1980) stated "this pattern of change was not completely consistent with the observed outward change in the form and appearance of these women's bodies" (p. 325), although she did not specifically measure actual body space of either the husbands or the wives. She further stated that the women underestimated the amount of space their bodies occupied during the first postpartum month. Fawcett also indicated that the women made comments that they felt, or wanted to feel smaller than they actually were.

To summarize, in all the studies cited, there was a discrepancy between the perceived body space and the actual body space. Depending on the type of subjects, there was either an overestimation or an underestimation of the amount of space their bodies occupied. This discrepancy seems to indicate that the subjects' attitudes to their bodies was influencing how they perceived their bodies. However, none of these studies explored the attitudinal component of body image.

Body Attitude. The attitude to body image, particularly as it relates to the postpartum period, is the main focus of this study. The

attitudinal dimension, as defined by Traub and Orbach (1964), encompasses a broad spectrum of feelings, attitudes, and emotional reactions toward the body. Body attitude represents the individual's valuation of his body. All the studies cited within this section have used pregnant/postpartum women as subjects.

McConnell and Daston (1961) investigated changes in body image during pregnancy and the early postpartum period in an exploratory study of 28 multiparous women using Barrier, Penetration, and the Osgood Semantic Differential scores as indicators of body image. The Barrier score refers to the interpretation of Rorschach responses referring to definiteness and protective strength of the boundaries which demarcate the body while the Penetration score refers to the responses implying vulnerability or weakness of body boundaries (p. 451). The Osgood Semantic Differential Scale provides a score on how the body is valued. It consists of 17 pairs of opposite adjectives. The pairs of adjectives on the scale were categorized into three areas; evaluation (e.g. 'beautiful - ugly'), potency (e.g. 'hard - soft'), and activity (e.g. 'active - passive'). Subjects were required to check on each of the 17 scales the one point which best represented her body as it seemed to her at the moment.

McConnell and Daston (1961) found that there was a significant decrease in Penetration scores after delivery which indicated reduced feelings of body vulnerability immediately postpartum. Barrier scores, however, did not change in any systematic manner following delivery. The authors interpreted the decrease in Penetration Scores to mean that

the fear and anxiety associated with pregnancy dissipates after the birth with a resulting decrease in feelings of vulnerability. The Barrier score, on the other hand, reflects more basic and stable characteristics of the body image boundaries and does not, therefore, change with pregnancy and delivery.

A third significant finding of McConnell's and Daston's (1961) study was that women with positive attitudes to pregnancy, as determined by interview, tended to evaluate their bodies (as determined by the Osgood Semantic Differential) positively during pregnancy but negatively afterward whereas women with a negative attitude to pregnancy tended to evaluate their bodies negatively during pregnancy but positively afterwards. The authors interpreted this to mean that women with the positive attitude to pregnancy and negative postpartum evaluation of their bodies experienced a loss of some of the esteem associated with the pregnancy once the baby was born. The women with the negative attitude to pregnancy and the more positive postpartum evaluation of their bodies experienced a feeling of having their bodies restored to their former desirable state.

Carty (1970), in exploring women's feelings about their figure changes in pregnancy, interviewed 40 women, both primiparas and multiparas, in varying stages of pregnancy and in the immediate postpartum period. The author did not indicate the nature of the instrument used but from her discussion it seemed apparent that an open-ended interview format was used for data collection and content analysis was used to categorize and analyze the data. She found that the women's dissatis-

faction with their bodies increased as the pregnancy progressed and was most marked immediately postpartum.

Mercer (1980) interviewed 12 teenage mothers twelve times during their first year of motherhood to study the impact of motherhood on them and their infants. Using content analysis, she found only six percent of the total responses related to body image, body appearance, and body function. The majority of these dealt with body function as it related to postpartal morbidity. The responses dealt with body appearance related to being fat, the scar from the Caesarean Section, and stretch marks. Perhaps one of the reasons for the low number of body image related responses was the fact that the postpartal period extends for only six weeks and is a small segment out of the 52 weeks which constituted the time frame of the study.

Moore (1978), in an exploratory cross-sectional study, investigated the relationship between the trimester of pregnancy and the woman's perceived body image. She included both multiparas and primiparas in her study sample: 60 in the first trimester, 71 in the second trimester, and 91 in the third trimester. Using the Osgood Semantic Differential, previously described, she found in the later stages of pregnancy, that the women's attitudes to their body images became poorer. However, the investigation was not carried into the postpartum period. Also, it is noted that the Osgood Semantic Differential is a measurement of attitude to body image, not a measurement of the perception of body image (Fawcett & Frye, 1980). Therefore, it would seem more appropriate for Moore to have used the word 'attitude' in her study rather than the word

'perceived'.

Leifer (1977) studied 19 primigravidas in order to investigate some of the psychological changes that occur during the first pregnancy and the early postpartum months. Using a modified Jourard Body-Cathexis Scale to measure attitudes to body appearance, she took measurements of the woman's satisfaction with her body in the first trimester (as an indicator of nonpregnant body attitude), the second trimester, the third trimester, and at two months postpartum. The Body Cathexis Scale measured the level of body self-acceptance of the individual by asking her to evaluate various parts of her body (Ruggieri, Milizia & Romano, 1979). She found a shift from high to low body satisfaction occurred as the subjects progressed through their pregnancies and into postpartum. In fact, at two months postpartum more women (44%) indicated that satisfaction with their bodies was lower than at any other time during their pregnancies. However, it was noted that although Leifer categorized the body satisfaction scores into high, moderate, and low she did not define the range of scores for each category. Therefore, it was difficult to interpret her findings. Also, because she did not include the actual body satisfaction scores of her subjects in the presentation of her findings, it was not possible to examine the findings for specific relationships between prepregnant, pregnant, and postpartal body attitude changes.

A second finding in the Leifer (1977) study was that the few women (19%) who felt positively about their postpartal appearance ascribed this to an enhanced sense of womanliness as a result of nursing their

infants. A third significant finding was that women with a high degree of body satisfaction prior to pregnancy, and with positive attitudes about being pregnant, were the only ones who were positive about their pregnant appearance. This is congruent with one of McConnell and Daston's (1961) findings. Leifer, however, did not carry the comparison of body satisfaction prior to pregnancy and body satisfaction during pregnancy into the postpartum period.

Harris (1979) investigated body image changes in a group of 55 black primiparas as they progressed through their pregnancy. She hypothesized that there would be an increase in unusual body experiences as measured by the Body Distortion Questionnaire and that this body image measure would reflect the physical changes of pregnancy, peaking in the ninth month, and decreasing in the postpartum period. She also predicted that attitude to pregnancy and self would influence the body distortion measurement. The subjects responded to the questionnaires during their pregnancies at three to four months and at nine months, and in the postpartum period at six weeks.

Harris (1979) described the Body Distortion Questionnaire as providing "a quantitative indication of the presence of a variety of distortion or unusual ways of experiencing one's body" (p.349). The questionnaire consisted of seven subscales. "These subscales, along with examples of each, are: Large (parts of my body feel swollen); Small (my body feels small); Boundary Loss (I feel like my body is unprotected); Dirty (I feel like I should wash my hands); Blocked Openings (my ears feel stopped up); Skin (my skin feels tighter than usual); and Deperson-

alization (my hands feel like they are not mine)" (p.349). The attitudinal variable was measured by the Osgood Semantic Differential.

Harris (1979) found that the women showed the most body distortion at nine months and that their postpartum scores fell to a level less than their first trimester scores. The author interpreted this to mean that the physical changes as a result of the delivery occurred quickly and were experienced in a dramatic way. The women had a very short period of time in which to accommodate this dramatic change. This finding is congruent with Fawcett's (1977) finding that perceived body space decreased markedly during the first postpartum month.

A second finding was that the more positive the women's attitudes were toward themselves and their pregnancies, the less body distortion they experienced at nine months. However Harris did not carry this analysis of attitude to self in relation to body distortion experience into the postpartum period. It must also be noted that the ethnicity of the subjects might have influenced the findings.

In terms of the attitudinal dimension of body image during the pregnancy/postpartum period, it seems evident that women's dissatisfaction with their bodies increased as their pregnancies progressed and peaked in the postpartum period (Carty 1970; Leifer, 1977; Moore, 1978). As well, the women who were positive about themselves prior to pregnancy and who were happy with their pregnancies seemed positive about the changes that occurred in their bodies during their pregnancies and the postpartum period (McConnell and Daston, 1961; Harris, 1979). However, some of the studies (Moore, 1978; Harris, 1979) did not explore

the postpartum period at all. Also, Moore did not differentiate the attitudinal dimension of body image from the perceptual dimension and she did not report reliability or validity data on the instrument used in her study. Others (McConnell and Datson, 1961; Carty, 1970; Leifer, 1977) did investigate attitude to body image in the postpartum period. However, McConnell and Datson presented data only for the early segment of the puerperium. Carty made only general comments about postpartum body attitude. Leifer, who did gather data on attitude to body image beyond the early postpartum period did not indicate validity and reliability of the tool she used to measure body attitude. As well, her sample size was small and she did not define the high, medium and low categories of body attitude in terms of actual body attitude scores. As well, the types of subjects were not congruent amongst the various studies. McConnell and Daston (1961) used only multiparas, Carty (1970) and Moore (1978) used both multiparas and primiparas, while Leifer (1977) and Harris (1979) used only primiparas.

Summary

It seems that there might be an attitudinal change within the six week postpartum period and that there should be an association between prepregnant, pregnant and postpartal attitude to body image. First, various authors (Russell, 1974; Leifer, 1977; Mercer, 1981) have indicated that the postpartum period is a time of crisis and that body image is a contributing factor to that crisis. And second, physiologically

the woman's body is changing quickly, in comparison to the gradual changes associated with the nine months of pregnancy, from a pregnant state to a nonpregnant state. Since Caplan's (1964) concept of crisis indicates that a given crisis is self-limiting from four to six weeks and since physiologically, six weeks postpartum marks the end of the involution process within the woman's body it seems logical that the concept of how the woman feels about her body during this time should be examined. The first question this study will address, then, is how a woman feels about her body during the postpartum period.

Another consideration in examining the concept of postpartal attitude to body image is the selection of the actual time periods at which attitudinal measurements should be taken. Grubb (1980) indicated that the eight women in her study were aware of the disequilibrium in their lives during their hospitalization but were not actively involved in attempting to restore that equilibrium. The active process began only after discharge from the hospital. For this reason it seems that two weeks postpartum would be an appropriate time for the first attitudinal measurement to occur. Six weeks postpartum seems appropriate time for the last measurement to occur because it is congruent with Caplan's (1964) concept of a crisis being self-limiting to six weeks and because, physiologically, it marks the end of the involutinal process within the woman's body. Therefore, the second question this study will address is; does the woman's attitude to her body change between the second and the sixth week postpartum?

A third area of concern is the lack of congruence in the nature of

the samples used in previous research into postpartum body image. Some studies have used only primiparas as subjects (Leifer, 1977; Mercer, 1980; Harris 1979) while others have used only multiparas (McConnell & Daston, 1961; Grubb, 1980). Still others have used both (Carty, 1970; Fawcett, 1977; Moore, 1978). Another question this study will address, then, is there difference in body attitude between multiparas and primiparas.

Finally, based on Schonfeld's (1963) body image concept that the body experience arises out of the individual's personal and emotional experiences, it seems reasonable to suggest that how the woman felt prior to pregnancy and during pregnancy would influence how she felt about her body postpartally. None of the studies identified have investigated the change of attitude over time in the postpartal period or have specifically analyzed the relationship between prepregnant, pregnant, and postpartum attitude to body image. Leifer's study (1971; 1977) examined the relationship between prepregnant, pregnant, and postpartal attitude to body image in a general way only. Therefore the last question this research study will address is the relationship between prepregnant, pregnant, and postpartal attitude to body image.

Research Questions

Based on the review of the literature, the specific research questions of this study are:

1. What is the woman's attitude to her body image during the second and the sixth week of the postpartum period?
2. Does her attitude to her body image change between two and six weeks postpartum?
3. Is there a difference in attitude to body image between primiparas and multiparas in the postpartum period?
4. Is there a difference between prepregnant attitude to body image, pregnant attitude to body image, and postpartal attitude to body image in postpartum women?
 - a. Is there a difference between prepregnant attitude to body image and pregnant attitude to body image?
 - b. Is there a difference between prepregnant attitude to body image and postpartal attitude to body image measured at two and six weeks?
 - c. Is there a difference between pregnant attitude to body image and postpartal attitude to body image measured at two and six weeks?

CHAPTER II

DESIGN AND PROCEDURE

This chapter presents the study methodology. It includes a discussion of the study design, the development and testing of the instrument, the sampling method, procedures, method of analysis, and the ethical considerations.

Study Design

This study was exploratory and descriptive in nature. The Body Cathexis Scale (Jourard & Secord, 1955) was modified by the author for the purposes of this study. The modified version was called the Attitude to Body Image Scale (ABIS). The data were collected by administering the ABIS to eligible subjects in their own homes at two weeks and again at six to seven weeks postpartum.

Four variables were considered in this study, the main one being the woman's attitude to her body image in the postpartum period. It was measured by the ABIS. The second variable, the parity of the woman, was used as a means of grouping the subjects for the purpose of analyzing the main variable. The final two variables were the woman's attitude to body image prior to pregnancy and her attitude to body image during pregnancy. These two variables were measured at the prepregnant

and the pregnant (third trimester) time periods retrospectively using the ABIS at the two week postpartum measurement. Therefore, the data collected provided sequential information on the prepregnant, pregnant, two week and six week postpartum body image attitude scores of primiparas and multiparas.

Instrument

Attitude to Body Image Scale (ABIS)

The Body-Cathexis Scale was developed by Secord and Jourard (1953) and modified by Jourard and Secord (1955). It was used to measure the "degree and direction of feelings towards one's body" (Jourard & Secord, 1954, p. 184). The instrument listed twelve body parts which were rated by the subject on a seven point scale ranging from one - strong positive feeling to seven - strong negative feeling. The total score of all twelve body parts was divided by twelve to give the final score which ranged from one to seven. Fawcett and Frye (1980) used the scale but found no validity or reliability data published for it. These authors did not report on the validity of the measure but they did address reliability and found that in their sample of 41 female and 21 male subjects, the internal consistency for all scale items, using Cronbach's alpha, was .74.

Leifer (1971) modified the Body-Cathexis Scale in her study of pregnant and postpartal women. She reduced the number of items from twelve to ten and the ordinal measurement scale from seven to five. She

modified and added items to make the instrument more appropriate to pregnant and postpartal women. However, there were no estimates of validity or reliability on the modified instrument reported in her study.

Since there was an internal consistency measurement for the original tool (Fawcett & Frye, 1980) it seemed appropriate to adhere more closely to that instrument than to Leifer's modified scale. However, the original scale was modified for this study because it did not include all the parts of the body which were likely to change with pregnancy. Therefore, the scale was modified by the investigator to include body parts which were likely to change during pregnancy and the postpartum period. In the original scale four items related to the lower extremities which included 'thighs', 'calves', 'legs', and 'feet'. These were modified to two items, 'legs' and 'feet'. The item, 'height' was deleted because its value is not subject to change as a result of pregnancy. The items of 'nose length' and 'neck length' were adjusted to become 'facial appearance'. The items 'abdomen' and 'hair' were added because both of these body parts change or may change with pregnancy. This modified scale was called the Attitude to Body Image Scale (ABIS). A copy of how the ABIS was modified is included in Appendix A.

The ABIS consisted of a list of ten body parts. These were weight, bust, waist, hips, legs, feet, facial appearance, shoulder width, abdomen, and hair. The subjects indicated their attitude to their bodies by rating each of the body parts on a Likert-type scale. In this scale ratings of one through seven were assigned. These ratings represented

feelings of strongly positive, positive, slightly positive, having no feeling one way or the other, slightly negative, negative, and strongly negative, respectively. To calculate the final body attitude score, the total score of all ten body parts was divided by ten. Therefore, the body attitude score could range from one, indicating a strongly positive feeling toward the body, to a seven, indicating a strongly negative feeling toward the body.

The ABIS was presented to the subjects in four parts (See Appendix B). In each part, the ten items of the scale remained the same but the sequence in which the items were presented was changed in an attempt to reduce the bias resulting from "response set" (Polit & Hungler, 1978, p. 368). However, the time frame from which the subjects responded differed with each part; part one represented the prepregnant body attitude, part two represented the pregnant body attitude, part three represented the two week postpartal body attitude, and part four presented the six week postpartal body attitude.

Pretest of the ABIS

In order to obtain estimates of the validity and reliability of the instrument it was pretested prior to being used for the main study.

Validity. Three experts in the field of maternal-child nursing, community health nursing, and statistics were asked to determine the content validity of the ABIS independently. These experts were asked to indicate whether or not the items on the ABIS had been modified ade-

quately to obtain data on body parts which were likely to change during pregnancy and the postpartum period.

Reliability. The ABIS was pretested in order to obtain two estimates of the reliability; its stability and its degree of internal consistency. The stability of the instrument refers to its susceptibility to extraneous factors from one administration to the next while the internal consistency, or homogeneity, of the instrument refers to the degree to which all the subparts of the tool are measuring the same characteristic or trait (Polit & Hungler, 1978).

Because the responses of postpartum women were expected to change over the study period, a decision was made to test the instrument on nonpregnant women of similar age as the sample but whose body attitude might be fairly stable over a four week time period. The four week time period was selected because it was equivalent to the period of time during which the subjects in the main study would be completing the instrument. Therefore, a group of 32 nonpregnant women between the ages of 18-40 were used as the sample upon which the reliability of the instrument was assessed. To simulate the conditions under which the main study was to be conducted, the investigator administered the instrument to the subjects in their own homes.

Since the data collected were ordinal, the Spearman r Reliability Coefficient (Siegel, 1956) was used for the comparison between the two measurements. At both times the subjects were requested to respond to the instrument from a present and a retrospective point of view of about

one year ago. The retrospective measurement was considered necessary because the subjects in the main study were asked to identify retrospective points of view when they declared their prepregnant and their pregnant attitudes to body image. The retrospective measurement of 'about one year ago' was approximately equivalent in time to the prepregnant retrospective measurement of the main study.

The ABIS, as shown in Appendix C, was administered to the sample on two occasions with a four week interval between the occasions. The four week interval was equivalent to the time interval during which the ABIS was administered in the main study. As well, Selltiz, Wrightsman and Cook (1976) indicate that four weeks is an adequate length of time between the two measurements when establishing the test-retest reliability of an instrument. The general presentation of the ABIS seemed acceptable to the subjects as they made no negative comments about the items or the general structure of the instrument.

The internal consistency of the ABIS was estimated by applying the Cronbach's alpha analysis to the data from both time intervals (Polit & Hungler, 1978).

Population and Sampling Design

A group of 109 postpartal women, who gave birth to healthy full term infants at a large urban hospital in western Canada between January 3, 1982 and February 1, 1982, were approached to participate in the study. They had the following characteristics:

- a. the birth was a vaginal delivery with no surgical procedure performed other than episiotomy.
- b. the delivery was a single birth.
- c. the mother and the infant had no diagnosed medical problems as indicated on the hospital chart.
- d. the mother and infant were discharged from hospital together.
- e. the mothers ages ranged from 18-40 inclusive.
- f. the mother and father of the infant were married and living together.
- g. the mother was fluent in English.
- h. the mother resided within the limits of the city chosen for the study.

From this population of 109 women; 63 women, 30 primiparas and 33 multiparas, consented to participate in the study. A sample size of 63 was considered to be large enough to reduce the probability of committing a Type II error and maintain the power of the statistical tests used in the study (Siegel, 1956). These tests, included the Wilcoxon Matched-Pairs Signed-Ranks Test, the Mann-Whitney U Test, and the Median Test.

Procedures

One hundred nine postpartal women who met the criteria for inclusion in the study were contacted personally by the investigator on the three different postpartum wards in the hospital. It was

anticipated that they would be contacted on the fourth day postpartum in keeping with Rubin's (1967) theory of maternal role attainment. Rubin indicated that the 'taking in' period of the first three days is a time when mothers are integrating their new roles into their self structure and are, therefore, not as receptive to new information or learning. Brown (1975) stated that her subjects were able to integrate new information on the fourth day postpartum. However, many women were discharged before the fourth day. Therefore, the eligible subjects were contacted on the second or third day postpartum.

When the subjects were contacted in the hospital they were given a verbal and a written description of the study (see Appendix D). At this time they were asked whether they could be contacted at home after discharge. They were not asked to participate in the study at the time of this hospital contact. It was hoped that the subjects would not feel pressure to consent within the institutional setting of the hospital. A telephone call was made to each subject who agree to be contacted, about one week after their discharge from hospital. At this time, if they were interested in participating in the study, an appointment was made for a home visit. At the time of the first home visit, when the subject was in her second postpartum week, subjects were asked to sign a consent form (see Appendix E) to participate in the study. At the end of this first home visit, the subjects were informed that they would be contacted by telephone by the investigator in approximately three weeks time in order to make the appointment for the six week postpartum visit. At the time of this second telephone call it became more

difficult to arrange the visit for exactly the six week postpartum time because the women were feeling better and were more mobile. Therefore, the visits occurred between six to seven weeks postpartum.

Method of Analysis

In testing the reliability of the ABIS the Spearman r Reliability Coefficient (Polit & Hungler, 1978) was used for the comparisons between both the present and the retrospective measurements of the two time intervals. In identifying the internal consistency of the Scale, Cronbach's alpha was used at both time intervals (Polit & Hungler, 1978). These were calculated manually.

The first research question, what is the woman's attitude to her body image during the second and the sixth week of the postpartum period, was answered by calculating the median and the interquartile range of the body attitude scores of the total group of subjects for the second and the sixth week postpartum. In order to determine the frequency of the scores as they occurred in the various segments of the scale, the scores from the ABIS were grouped into three categories; positive, neutral (having no feeling one way or the other), and negative. The positive category was defined as scores ranging from 1 - 3.9; the neutral category as scores ranging from 4.0 - 4.9; and the negative category as scores ranging from 5.0 - 7.0. These score categories are in keeping with the scale point definitions of the ABIS.

The second research question, does the woman's attitude to her body

image change between two and six weeks postpartum, was analyzed by applying the Wilcoxon Matched-Pairs Signed-Ranks Test (Siegel, 1956) to the two and six week postpartum findings.

The third research question, is there a difference in attitude to body image between primiparas and multiparas, was analyzed by using the Mann-Whitney U Test (Siegel, 1956) and the Median Test (Ferguson, 1976).

The fourth research question, is there a difference between pre-pregnant, pregnant, and postpartal attitude to body image in postpartum women, was answered by analyzing each of the three subquestions. These were: is there a difference between prepregnant attitude to body image and pregnant attitude to body image; is there a difference between pre-pregnant attitude to body image and postpartal attitude to body image measured at two and at six weeks postpartum; and is there a difference between pregnant attitude to body image and postpartal attitude to body image measured at two and at six weeks postpartum. The Wilcoxon-Matched Pairs Signed-Rank Test was used in the analysis of all three subquestions.

The analysis of the four research questions was done on a digital computer using the MTS/SPSS programming language (Humphrey, Marshal, Precht, & Taerum, 1981).

Ethical Considerations

At the time the subjects gave their written consent to participate in the study they were informed of their right to withhold or withdraw

consent at any time during the data collection period. They were also informed of their anonymity and of the fact that this was assured by the use of coding techniques. As well, they were asked to indicate on the consent form whether they wished to receive an abstract of the results of the study.

In this chapter the findings and conclusions of the study are presented.

Validity of the MBS

There was a VOS agreement among the three experts that the items of the MBS had been modified adequately and that all items of the scale were as modified. This determined the content validity of the scale.

Reliability of the MBS

The preferred method was used to obtain the reliability of the MBS. The scale was administered to 20 experienced subjects with a fair work history during the measurements. In both testing sessions, the subjects were requested to respond to the statements indicating their present attitude to their body image and their ability to their own image of about how they probably. The Pearson's reliability coefficient was used for the comparison between both the present and the retrospective measurements of the subjects. Thirty subjects completed the present and retrospective measurements of the MBS.

CHAPTER III

RESULTS AND CONCLUSIONS

In this chapter the findings and conclusions of the study are presented.

Validity of the ABIS

There was 100% agreement among the three experts that the items of the ABIS had been modified adequately and that all items in the Scale remain as modified. This determined the content validity of the Scale.

Reliability of the ABIS

The test-retest method was used to obtain the reliability of the ABIS. The Scale was administered to 32 nonpregnant subjects with a four week interval between the measurements. On both testing occasions, the subjects were requested to respond to the instrument indicating their present attitude to their body image and their attitude to their body image of about one year previously. The Spearman r Reliability Coefficient was used for the comparisons between both the present and the retrospective measurements of the two times. Thirty subjects completed the present perspective scale at both times while 24 subjects

completed the retrospective scale at both times. Two subjects were not available for the second measurement thus leaving thirty subjects for the present perspective calculation. A further six subjects completed the instrument incorrectly on the retrospective measurement, leaving a total of 24 for this measurement. The error that occurred in all six cases related to the subjects making two check marks for the same scale item and then not making any mark on the item immediately below the first item.

The Spearman r for the present measurement was .71 ($n=30$) and for the retrospective measurement was .89 ($n=24$). Although the reliability coefficient of .71 for the present measurement was fairly low, it was accepted because a coefficient of .71 still has a predictive capacity of .50. However, this indicates that the instrument must be further refined to increase its reliability for future use.

The fact that the retrospective measurement had a much higher reliability coefficient than the present day measurement of body attitude seems to indicate that the retrospective measurement was the more stable of the two measurements. This could be interpreted to mean that the present day measurement is more susceptible to the daily fluctuations of feelings towards one's body. Schonfeld (1963) has called this the actual subjective experience of the body. The retrospective measurement, on the other hand, represents the more long-term, stable sense of how one feels about one's body which Shontz (1975) has identified as experiencing the body as a differentiated whole.

The second test of reliability was to identify the internal

Table 1

Internal Consistency Reliability Measurements
of ABIS
on Both Testing Occasions

	First Testing Occasion		Second Testing Occasion (4 weeks later)	
	Present	Retrospective	Present	Retrospective
n	31	29	30	24
Cronbach's alpha	.85	.76	.88	.90

results.

The data collected were ordinal and the design was a repeated measure. The measurements were taken at the second week and the sixth week postpartum and, retrospectively, at the prepregnant and the pregnant time period. The body attitude scores of each subject as they occurred over time is presented in Appendix F. Of the total 63 subjects there are complete data for 59 subjects, 30 multiparas and 20 primiparas. Two subjects were not available for the six week home visit and two other subjects completed the instrument incorrectly in answering the retrospective component of the ABIS.

A probability level of equal to or less than .05 was considered the accepted level of significance in the analysis of the data in this study.

Research Question 1: What is The Woman's Attitude To Her Body Image During Second and the Sixth Week of the Postpartum Period?

This question was answered by calculating the median and the interquartile range of the total group of subjects for the second and the sixth week testing occasion. These data are reported in Table 2.

The scores from the ABIS could range from one, which represented a strongly positive feeling toward the body, to seven, which represented a strongly negative feeling toward the body. The median scores of 3.4 at two week postpartum and 3.5 at six weeks postpartum indicated that the subjects' attitude to their bodies fell into the lower end of the

Table 2
 Median and Interquartile Range of Body
 Attitude Scores of Women at Two and Six weeks Postpartum

Body Attitude Scores	Postpartum Time	
	2 weeks (n = 63)	6 weeks (n = 61)
Median	3.4	3.5
Interquartile Range	3.0 - 4.0	2.5 - 4.0

positive side of the scale, therefore, indicating only a slightly positive feeling. Also, there appeared to be a slight shift, although not statistically significant, toward a more negative feeling at six weeks postpartum as indicated by the higher median score.

In order to determine the frequency of the scores as they occurred in the various segments of the scale, the scores from the ABIS were grouped into three categories; positive, neutral, and negative. The positive category was defined as scores ranging from 1 - 3.9; the neutral category as scores ranging from 4.0 - 4.9; and the negative category as scores ranging from 5.0 - 7.0. Table 3 indicates how the scores grouped into the three categories.

At two weeks postpartum, 45 subjects (71.4%) indicated a positive attitude to body image; 16 subjects (25.4%) indicated a neutral attitude; while 2 subjects (3.2%) indicated a negative attitude. The findings are similar at six weeks postpartum. Forty-three subjects (70.5%) indicated a positive attitude, 17 subjects (27.9%) indicated a neutral attitude while 1 subject (1.6%) indicated a negative attitude to body image. Based on these findings it is evident that the majority of subjects (71.4%) of this study had a positive attitude toward their bodies in the postpartum period.

With such a large number of subject scores occurring in the positive category, that category was further divided into three sub groups, strongly positive (scores ranging from 1 - 1.9), moderately positive (scores ranging from 2 - 2.9), and slightly positive (scores ranging from 3 - 3.9). Table 4 indicates how the scores grouped into the three

Table 3

Frequency of Positive, Neutral, and Negative Body Attitude
Scores at Two and Six Weeks Postpartum

Postpartum Time	N	Body Attitude Scores		
		Positive (1-3.9)	Neutral (4.0-4.9)	Negative (5.0-7)
2 weeks	63	45 (71.4%)	16 (25.4%)	2 (3.2%)
6 weeks	61	43 (70.5%)	17 (27.9%)	1 (1.6%)

Table 4

Frequency of the Strongly, Moderately, and Slightly Positive Body Attitude Scores at Two and Six Weeks Postpartum

Postpartum Time	N	'Positive' Body Attitude Scores		
		Strongly Positive (1-1.9)	Moderately Positive (2-2.9)	Slightly Positive (3-3.9)
2 weeks	45	6 (13.3%)	10 (22.2%)	29 (64.4%)
6 weeks	43	3 (7%)	15 (35%)	25 (58%)

categories.

At two weeks postpartum 6 subjects (13.3%) indicated a strongly positive attitude, 10 subjects (22.2%) indicated a moderately positive attitude while 29 subjects (64.4%) indicated a slightly positive attitude. The findings are similar at six weeks postpartum. Three subjects (7%) indicated a strongly positive attitude, 15 subjects (35%) indicated a moderately positive attitude, while 25 subjects (58%) indicated a slightly positive attitude. It is evident from these findings that the majority of the subjects in the 'positive' category, indicated only a slightly positive postpartum attitude to body image.

Research Question 2: Does the Woman's Attitude To Her Body Image Change Between Two and Six Weeks Postpartum?

This question was analyzed by applying the Wilcoxon Matched-Pairs Signed-Ranks Test (Siegel, 1956) to the two and six week postpartum findings. No significant difference was found. Therefore, it is concluded that the subjects of this study did not change significantly in their attitude toward their body image from the second through to the sixth week postpartum.

Research Question 3: Is There a Difference in Attitude to Body Image Between Primiparas and Multiparas In the Postpartum Period?

This question was analyzed by using the Mann-Whitney U Test. No significant difference between the two groups was found at two weeks or

at six weeks. However, when the Median Test, a sign test for independent samples (Ferguson, 1976), was applied to the analysis of the postpartum mean scores (scores resulting from the mean calculation of the two postpartum body attitude scores for each subject) a significant difference ($p < .03$) was evident. The results of the comparison between the two groups at two weeks postpartum, at six weeks postpartum, and using the postpartum mean scores are shown in Table 5.

This finding is of statistical significance for several reasons. First, the mean of the two postpartum scores would seem more indicative of the postpartum period as a whole. Second, the postpartum mean score tends to moderate the extreme scores in the array of data. And third, the analysis of the difference between the two groups, when using the postpartum mean scores is more consistent with the apparent difference between the two groups as indicated by their medians at two weeks and at six weeks.

Therefore, based on the findings of this study, it can be concluded that there is a significant difference in attitude to body image in the postpartum period between primiparas and multiparas. As indicated by the medians of the scores, the multiparas have a more positive attitude to their body image than do the primiparas.

Research Question 4: Is There a Difference Between Prepregnant, Pregnant, and Postpartal Attitude to Body Image in Postpartum Women?

This question was answered by analyzing each of the three

Table 5

The Median and Mean Body Attitude Scores of Multiparas and Primiparas at Two Weeks and at Six Weeks Postpartum

Pariety	Postpartum Median Scores					Postpartum Mean
	N	2 weeks	N	6 weeks	N	
Primiparas	30	3.6	29	3.7	29	3.825
Multiparas	33	3.3	31	3.3	31	3.35
Probability Level	.40		.18		.03	

subquestions, which were: is there a difference between prepregnant attitude to body image and pregnant attitude to body image; is there a difference between prepregnant attitude to body image and postpartal attitude to body image measured at two and six weeks postpartum; and is there a difference between pregnant attitude to body image and postpartal attitude to body image measured at two and six weeks postpartum? The Wilcoxon-Matched-Pairs Signed-Rank Test was used in the analysis of all three and a summary of the findings is presented in Table 6.

Subquestion 1: Is There a Difference Between Prepregnant Attitude to Body Image and Pregnant Attitude to Body Image?

The analysis of this first subquestion indicated that there was a significant difference between the prepregnant body attitude and pregnant body attitude. When using the Wilcoxon Matched-Pairs Test the rank sum of the negative differences was 1517 (N=60) which was significant at $p < .01$. This indicated that the women in this study definitely felt more negative about their body image during the last three months of pregnancy than they did prior to the onset of their pregnancy.

Subquestion 2: Is There a Difference Between Prepregnant Attitude To Body Image and Postpartal Attitude To Body Image Measured at Two and Six Weeks?

This Wilcoxon Matched-Pairs analysis was applied to examine the specific differences between the prepregnant attitude scores and the two

Table 6

The Wilcoxon Matched-Pairs Analyses of the Direction of Difference Between Prepregnant, Pregnant, and Postpartal Attitude to Body Image

Period	N	Direction of Attitude Change	Wilcoxon Rank Sum
Prepregnant to Pregnant	60	Negative	1517*
Prepregnant to Postpartum ¹	59	Negative	1274*
Pregnant to Postpartum ¹	61	Positive	1155.5**

* $p < .01$ ** $p < .05$

¹Note. Postpartum mean scores were used in these analyses.

week attitude scores, the prepregnant attitude scores and the six week attitude scores, and the prepregnant attitude scores and the postpartum mean attitude scores. A statistically significant difference ($p < .01$) was identified in all three analysis and the direction of change was negative. The rank sum of negative differences was 1313 at two weeks postpartum, 1298.5 at six weeks postpartum, and 1274 using the mean of the two postpartum scores. In other words, the women in this study felt more negatively about their body image in the postpartum period than they did prior to the onset of pregnancy.

Subquestion 3: Is There a Difference Between Pregnant Attitude to Body Image and Postpartal Attitude to Body Image at Two and Six Weeks?

The analysis of this third subquestion indicated that there was a statistically significant difference between pregnant attitude to body image and postpartal attitude to body image. Again, the postpartum mean of the two and six week scores was used in the analysis. The Wilcoxon Matched-Pairs Test indicated that the rank of the positive differences was 1155.5 which was significant at $p < .04$. Therefore, the findings of this study seem to indicate that women felt more positive about their body image in the postpartum period than they did during the last three months of their pregnancy.

The Wilcoxon Matched-Pairs analysis was also used when the specific differences between pregnant attitude and two week postpartum and pregnant attitude and six week postpartum attitude were examined. The

results of this analysis were different from the pregnant and postpartal mean attitude analysis. There was a statistically significant difference ($p < .03$) when the pregnant and the two week body attitude scores were compared. There was no statistically significant difference when the pregnant and the six week scores were compared. Since there was not statistically significant difference in body attitude scores between two and six weeks postpartum, and since there was a statistically significant difference between pregnant and the postpartum mean attitude scores, it can be concluded that the women in this study felt more positive about their body image in the postpartum period than during the pregnant period.

Discussion

To summarize the results of this study, it was found that most subjects indicated a positive attitude to their body image in the postpartum period. Of the 'positive' category subjects the majority of these women felt only slightly positive about their postpartal bodies. Second, there was no significant difference in attitude toward body image at the second and the sixth postpartum week. Third, the primiparas felt significantly more negative about their postpartal body image than did the multiparas ($p < .05$). Fourth, the women in the study felt more negative about their bodies during the last three months of pregnancy than they did prior to the onset of their pregnancy ($p < .05$). Fifth, the subjects indicated a more negative feeling about their body image in the postpartum period than they did prior to the onset of

CHAPTER IV

DISCUSSION OF FINDINGS

This chapter discusses and interprets the findings of this study in relation to other research in the area. It also describes the implications of the results of the study for nursing practice and research. The limitations of the study are presented and suggestions for future research are given.

Discussion

To summarize the results of this study, it was found that most subjects indicated a positive attitude to their body image in the postpartum period. Of the 'positive' category subjects the majority of these women felt only slightly positive about their postpartal bodies. Second, there was no significant difference in attitude toward body image at the second and the sixth postpartum weeks. Third, the primiparas felt significantly more negative about their postpartal body image than did the multiparas ($p < .03$). Fourth, the women in the study felt more negative about their bodies during the last three months of pregnancy than they did prior to the onset of their pregnancy ($p < .01$). Fifth, the subjects indicated a more negative feeling about their body image in the postpartum period than they did prior to the onset of

pregnancy ($p < .01$). And finally, the subjects felt more positive about their body image in the postpartum period than they did during the last three months of their pregnancy ($p < .04$).

Attitude to Body Image of Postpartal Women

The finding that the majority of the subjects seemed to feel positive, although only slightly positive, about their bodies during the postpartum period seems to stand in contrast to Leifer's (1971, 1977) findings. She found that in her sample of 16 subjects, seven (44%) indicated low (negative) body satisfaction, six (37%) indicated moderate body satisfaction, while three (19%) indicated high (positive) body satisfaction. In this study the results showed that of 63 subjects, 2 (3.2%) indicated negative body attitude scores, 16 (25.4%) indicated neutral body attitude scores, while 45 (71.4%) indicated a positive body attitude score at two weeks postpartum. At six weeks postpartum, of 61 subjects, 1 (1.6%) indicated negative body attitude scores, 17 (27.9%) indicated neutral body attitude scores, while 43 (70.5%) indicated positive body attitude scores.

Factors which could account for the discrepancies between the two studies are that Leifer's (1971, 1977) study sample was small (16), and that she did not control for complications during the pregnancy or labor and delivery, and she did not report estimates of reliability and validity of the instrument she used. Finally, she did not indicate the score range for her three categories. Therefore, the comparison between the two sets of data cannot be made objectively.

As well, a number of authors (Gruis, 1977; Harrison & Hicks, 1980; Tentoni & High, 1980; Bull, 1981; Moss, 1981) have indicated that one of the postpartum woman's main concerns is the 'return of her figure to normal'. Russell (1974) has indicated that the woman's concern about her body and loss of figure is one of the factors which can contribute to the critical nature of the puerperium. It would seem logical that if women were so concerned about their bodies and the return of their figures to normal postpartally, they would have a rather negative attitude or feeling toward their bodies. However, in this study, when the specific attitude or feeling toward the body was measured, the majority of the women (71.4% at two weeks and 70.5% at six weeks) indicated a positive feeling toward their bodies during the postpartum period. Only 25.4% at two weeks and 27.9% at six weeks indicated a neutral attitude of having no feeling one way or the other towards their body image; while 3.2% at two weeks and 1.6% at six weeks indicated a negative attitude to their body image.

This incongruity between the literature stating that one of the postpartum women's major concerns is 'return of figure to normal' and the positive feeling the postpartal women of this study are expressing towards their bodies, seems to indicate that perhaps the concern of 'return of figure to normal' is not so much a concern about the actual physical appearance of the body. Perhaps, the high degree of concern towards the body stems from how the body itself is being experienced subjectively. In other words, the body's ability to function might be the component of the body which the women were concerned about when they

checked the 'return of figure to normal'. The concern was not so much the degree of dissatisfaction with the actual shape and size of the body as the wording 'return of figure to normal' might imply. Therefore, to identify what is meant by 'return of figure to normal' and to link it to body image attitude would seem an important area for further research.

To conclude, the findings of this study indicated that the women had a slightly positive feeling/attitude toward their bodies in the postpartum period.

Comparison of Body Image Attitude at Two and Six Weeks

The finding that there was no difference in attitude to body image between two and six weeks postpartum can be interpreted several ways. First, the finding could mean that the postpartal woman's attitude to her body image does not change significantly during the time between two weeks and six weeks postpartum. Second, it could be that the postpartal woman's body image attitude has reached a plateau, with the possibility of it having been different prior to two weeks postpartum and of it changing sometime in the future beyond the six week postpartum time period. To see whether body image attitudes change between the early postpartum period (after delivery to two weeks postpartum), the time period of two to six weeks postpartum, and the time period beyond the six weeks postpartum period would require further research.

Comparison of Body Image Attitude Between Multiparas and Primiparas

The finding that primiparas felt more negative about their body image postpartally than did the multiparas can be interpreted in several ways. First, the entire experience of pregnancy, labor and delivery, and postpartum adjustment was a new one for the primipara. Therefore, from the primipara's perspective, it would seem reasonable to expect a quick return of her body to it's former state. The fact that the body is not like it was before the onset of pregnancy and that it does not seem to be changing to a more desirable state could be the reason for the more negative feelings identified in this study. The multipara, on the other hand, has had previous experience with the bodily changes that occur in pregnancy, delivery and postpartally. She knows what to expect and therefore is not so disturbed by the seeming lack of or slow progress in postpartal bodily changes. This attitude seems to be reflected in the more positive feelings toward her body image during the postpartum period.

A second interpretation of this finding is that multiparas are just not as concerned about their bodies as are the primiparas. Grubb (1980) stated that the multiparas in her study, although they were very concerned about their lack of time for themselves, were less concerned about their appearance than any other personal need. She stated that they were more concerned about having enough physical rest and sleep. Mercer (1979) and Moss (1981) indicated that multiparas are greatly concerned about being able to relate to an increasing number of relationships and about being able to care adequately for another child.

It seems that the multipara's priorities have shifted to being more concerned about having enough energy to meet the demands of the family than about how her body is changing and how it looks.

Comparison of Body Image Attitude at the Prepregnant Period, Pregnant Period, and the Postpartal Period

When discussing the relationships between prepregnant, pregnant, and postpartum attitudes to body image it is useful to examine the medians of the body attitude scores at all four time periods of the total group.

The comparison between the prepregnant and the pregnant median body attitude scores indicated that the subjects felt more negative to their body image during their pregnancy than they did prior to the onset of the pregnancy. This finding is in agreement with other research in the area. Carty (1970) stated that her subjects' dissatisfaction with their bodies increased as the pregnancy progressed. Moore (1978) found that the more pregnant the women in her study were, the poorer were their attitudes to their body images. Harris (1979) indicated that the women in her study showed the most body distortion in the final month of pregnancy. Leifer (1977) also made reference to the woman's increasingly negative feeling about her body as pregnancy progressed.

Fawcett (1977) indicated that pregnancy is associated with change in how one feels oneself to be. She further stated that within this changing concept of oneself the most profound change during pregnancy is the outward enlarging form and appearance of the woman's body. Jourard

and Secord (1955), in their study of 60 female college students, found that a positive feeling was associated with small body size and a negative feeling with larger body size. Pregnancy, particularly in the last three months, does not represent a body state of smallness and is rather distant from the ideal female figure that Jourard and Secord describe (Moore, 1978). It is this discrepancy between the actual pregnant body and the ideal female body that could account for the more negative attitude to body image during pregnancy which the subjects in this study indicated.

Another factor which could explain the negative attitude toward the body in the last trimester of pregnancy is the fact that the enlarged size of the body, and particularly the enlarged abdomen, could be physically uncomfortable. Carty (1970) relates that the pregnant women in her study talked about feeling uncomfortable and unwieldy.

The comparison between prepregnant body attitude scores and postpartum body attitude scores indicated that the subjects felt significantly more negative about their bodies in the postpartum period than they did prior to the onset of their pregnancies. The median scores, further support this finding. Leifer's (1971, 1977) study collected data on body attitudes in the prepregnant and the postpartum time periods. However, although Leifer collected data on prepregnant and postpartum body attitude she did not present or discuss the analysis of the relationship between the two time periods.

The fact that the body is still recovering from the recent experience with pregnancy and is still altered dramatically from how it

appeared and felt prior to the pregnancy could explain the negative difference in attitude between the two time periods. Also, the fact that the prepregnant data were collected retrospectively at the two week postpartum home visit could influence how the subject indicated she felt about her body prior to pregnancy. In the reality of experiencing her body at two weeks postpartum and being asked to reflect back to how she felt about her body prior to pregnancy, the subject might indicate a more positive rating of her prepregnant attitude than she would have had she answered the ABIS at the actual prepregnant time period.

The last comparison, between the pregnant period and the postpartum period, indicated that the subjects felt more positive about their body image in the postpartum period than they did during the last three months of their pregnancy.

This finding is different from other research in the area. Both Leifer (1971, 1977) and Carty (1970) stated that the subjects in their studies were more dissatisfied with their bodies in the postpartum period than they were during their pregnancies. The finding in this study, however, is more congruent with Harris's (1979) findings. She found that her subjects showed the most body distortion in the ninth month of pregnancy and that their postpartum scores of body distortion fell significantly. In other words, her subjects expressed significantly fewer unusual body experiences in the postpartum period than they did during the last month of pregnancy. There seems to be a similarity between the reduced number of unusual body experiences in the postpartum period which was Harris's measure of body image, and the more positive post-

partum body attitude scores of this study.

Implication of the Findings

The findings of this study indicate that most of the postpartum women in this study had a slightly positive attitude to their body image; that primiparas felt significantly more negative about their postpartum body image than did the multiparas; that the subjects felt more negative about their bodies during pregnancy than during the pre-pregnant period; that the subjects felt more negative about their bodies during the postpartum period than during the prepregnant period; and that the subjects felt more positive about their bodies during the postpartum period than during the pregnant period. The implications of these findings will be examined in relation to the theoretical framework which was outlined in Figure 1, moving from the specific area of body image toward the more general area of the crisis of the postpartum period.

First, the literature indicates that pregnant and postnatal body image has been conceptualized into two dimensions, body perception and body attitude (Traub & Orbach, 1964). Fawcett's study (1977, 1978) made a major contribution to exploring pregnant and postnatal body image perception. The instrument which is presently being used to measure body perception is the topographic device developed by Schlacter (1971).

A number of studies (McConnell & Daston, 1961; Carty, 1970; Leifer,

1977; Moore, 1978; Harris, 1979) have contributed to the area of pregnant and postnatal body attitude. As indicated previously, the methodological problems in some (Carty, 1970; Leifer, 1977; Moore, 1978), or a lack of including the complete postpartal period in others (McConnell & Daston, 1961; Harris, 1979) seemed to indicate that the area of postpartal body attitude needed further exploration. This study was an attempt at this further exploration of postpartal body attitude. The two instruments that have recently been discussed in the literature (Fawcett & Frye, 1980) as measuring body attitude are the Body-Cathexis Scale (Jourard & Secord, 1955) and the Osgood Semantic Differential (Osgood, et al., 1957). The Osgood Semantic Differential was modified by Kurtz (1969) to become the Body Attitude Scale (BAS). The Body-Cathexis Scale was modified in this study to become the ABIS.

The literature (Grius, 1977; Harrison & Hicks, 1980; Moss, 1981) has indicated that postpartal women are very concerned about their figures returning to normal. Yet, in this study, which attempted to measure attitude to postpartal body image, the majority of the postpartal women indicated a positive attitude to body image. As indicated previously, perhaps the ABIS measured only the degree of satisfaction with the actual shape and size of the body while the women might have been expressing a concern about the subjective experience of the body's ability to function.

It would seem logical, therefore, to examine this issue of attitude to body image as it relates to the pregnant and postpartal women's actual concerns about their bodies from a longitudinal qualitative per-

Based on this qualitative data further instruments attempting to measure these concerns about the body could be designed. These new tools could then be tested and the results compared to the results from the ABIS and the BAS in the process of attempting to establish concurrent and construct validity of the instruments.

This study had a low (58%) participation rate. Many of the subjects in this study who declined to participate expressed interest in being involved but wanted the investigator to come to their homes at three or four weeks postpartum rather than at two weeks. Since no statistical difference between body attitude scores at two and six weeks postpartum was found in this study, it is suggested that the participation rate of subjects could be increased by collecting data related to the attitudinal component of body image between three and six weeks postpartum without affecting the study results to a significant degree.

Second, the findings of this study have implications for pregnant and postpartum women in how they feel about their bodies and in how they attempt to integrate their changing bodies into their daily lives. Primarily, it is important for women to understand that they might feel more negative about their bodies as they progress through their pregnancies because of its altered appearance, increased size and general discomfort. As well, it would be useful for postpartal women to understand that although they might feel more positive about their bodies in the postpartum period than during their pregnancy, they might feel considerably more negative about their postpartal bodies than they did prior to the onset of their pregnancies.

For the new mother to have information about her changing body, which the results of this study have indicated, would help her gain insight into her own specific situation. As Caplan (1964) has indicated, for an individual to gain insight into her/his particular situation facilitates the person's ability to cope with that situation.

Finally, the findings of this study have implications for nursing practice in that they provide nurses with information so that they can better understand how women feel about the alterations they experience in their bodies during pregnancy and the postpartum period. It is only after nurses have a better understanding themselves about how women feel about their changing bodies during pregnancy and postpartally that they will be able to provide new and prospective mothers with more information about their feelings towards their bodies in the postpartum period.

This dissemination of information to new and prospective mothers about their changing bodies could be incorporated into prenatal classes, particularly classes designed for the early segment of pregnancy; the teaching sessions during the new mother's stay in hospital following delivery; and during the community health nurse's postnatal home visits, telephone sessions with the mother, and parenting classes. Finally, this information could be included in any type of anticipatory guidance activity carried out by the nurse relating to pregnancy and the postpartum period.

The results gained from the specific investigation of the dimension of pregnant and postpartum body attitude adds to the growing body of knowledge about how women react to their changing bodies during preg-

nancy and the postpartum period. As the amount of information in this area increases and new insights are gained, nurses will be able to incorporate this new knowledge with greater confidence in their practice. This research based approach to nursing practice should facilitate a more empathic and informative nursing service to prospective and new mothers.

Limitations of the Study

A number of factors contribute to limiting the generalizability of the study findings. The first factor is that the sample was a non-random, convenience one.

A second factor is the retrospective nature of the prepregnant and the pregnant body attitude scores. Based on the findings of the test-retest reliability study of the nonpregnant, however, this limitation did not seem as significant as was first anticipated. The Spearman r for the test-retest retrospective measurement was .89. This indicated a high degree of stability in how the subjects felt about their body image, with a four week interval between the two retrospective measures.

A third factor which could have influenced the outcome of the study was the timing of the data collection. The data were collected during the months of January, February, and March of a severe winter season. This could have had a negative influence on the attitude scores. However, since the area of body attitude in the postpartum period had not been explored extensively in previous research this particular variable

was not considered of great significance in this study.

Suggestions for Future Research

The first consideration for future research would be to re-examine the concept of postpartal attitude to body image using a qualitative, prospective and random sampling approach to try to generate the specific concerns women have about their bodies during this time. Once their specific concerns and the intensity of these concerns have been identified, these data could be compared to the data on body attitudes from the ABIS, the Osgood Semantic Differential (Osgood et al., 1957) or BAS (Kurtz, 1969). This comparison could determine whether or not a relationship exists between concerns and attitudes to body image during the postpartum period. To further explore the total concept of body image the relationship between postpartal body image concerns, attitudes, and perceptions could then be examined. It is suggested, based on the findings of this study, that the data on postpartum body image attitude and concerns be collected between three and six weeks postpartum. In addition, when postpartal concerns, attitudes, and perceptions toward body image are studied, it is important to analyze the data according to parity.

Another area for further research would be to examine the relationship between prepregnant, pregnant, and postpartum attitude to body image, again using a qualitative, prospective, longitudinal design. This qualitative data could generate the specific body image

concerns women have during these time periods. These specific concerns could then be compared to the women's prepregnant, pregnant and postpartal body image attitudes and perceptions.

In addition, studies of pregnant and postpartal women's body image could include an investigation of the numerous variables, which are components of the actual subjective experience described by Schonfeld (1963), and could influence the feelings the postpartum woman has towards her body. Some of these variables might be fatigue levels, the desirability of the pregnancy, the method of infant feeding, the attitude of significant others to the woman's body, the attendance at prenatal classes, just to name a few. As well, different types of postpartum populations, such as women with cesarean section births, unwed mothers, and women who experienced multiple or premature births could be incorporated into the research design. These populations might indicate very different feelings towards their bodies than did the subjects of this study who had essentially normal uncomplicated labors, deliveries, and babies.

A final area for future consideration would be to examine the effectiveness of including information about pregnant and postpartal attitude to body image in various programs and activities designed specifically for new and prospective parents. The effectiveness of providing this information on body image could be determined by assessing whether or not it contributes to a woman's ability to cope with changes in her body during pregnancy and the postpartum period.

CHAPTER V

SUMMARY

The intent of this study was to describe the women's attitudes to their body image during the postpartum period and to compare them to their attitudes to their body image prior to and during pregnancy. A number of studies (Gruis, 1977; Harrison and Hicks, 1980) have indicated that women are greatly concerned about their bodies and the return of their figures to normal after the birth of their babies. Other authors (Russell, 1974; Mercer, 1981) have gone further to indicate that women's concern about their bodies is a contributing factor to the critical nature of the postpartum period. Nursing is one of the few professions involved with the care of the postpartal women beyond the period of hospitalization. If concern about the body is a contributing factor to the crisis of this period then nursing must have a more thorough knowledge about how postpartum women feel about their bodies. This study was an attempt to gain more detailed information about postpartum women's attitudes or feelings towards their bodies.

The specific objectives of the study were to identify the woman's attitude to her body image during the six week postpartum period; to identify whether this attitude changed over the six week period; to identify whether there was a difference in the attitude to body image between primiparas and multiparas; and to identify whether there were

associations between prepregnant attitude to body image, pregnant attitude to body image, and postpartal attitude to body image in postpartum women.

Based on these objectives the specific research questions were: one, what is the woman's attitude to her body image during the second and the sixth week of the postpartum period; two, does her attitude change between two and six weeks postpartum; three, is there a difference in attitude to body image between primiparas and multiparas; and four, is there a difference between prepregnant attitude to body image, pregnant attitude to body image, and postpartal attitude to body image. The fourth question was subdivided into three specific questions. These were: one, is there a difference between prepregnant attitude to body image and pregnant attitude to body image; two, is there a difference between prepregnant attitude to body image and postpartal attitude to body image at two and six weeks postpartum, and three, is there a difference between pregnant attitude to body image and postpartal attitude to body image measured at two and six weeks.

A non-random, convenience, urban sample of 63 postpartal women between the ages of 18 and 40 inclusive were investigated. Of this sample 33 were multiparas and 30 were primiparas. The data were collected by the investigator administering the ABIS in the homes of the subjects. The ABIS, a modified version of Jourard's Body-Cathexis Scale (Jourard & Secord, 1955) developed for the purpose of this study was used to identify the attitude to body image. It was modified to include all the parts of the body that were likely to change with pregnancy.

Content validity was determined by achieving 100% agreement among three experts that the items of the Scale had been modified adequately and that all items in the Scale remain as modified. The test-retest reliability coefficient of the ABIS, with a four week interval using 32 non-pregnant subjects, was .71 (n=30) at the present measurement and .89 (n=24) at the retrospective measurement. The internal consistency measurements of the ABIS were .85 (n=31) and .88 (n=30) at the two present measurements and .76 (n=29) and .90 (n=24) at the two retrospective measurements, using Cronbach's alpha.

The research design was a repeated times measures design of the postpartal woman's attitude to her body at two and at six weeks postpartum. The attitude to body image at the pregnant and the prepregnant time periods was collected retrospectively during the two week postpartum home visit.

It was found that most of the subjects of this study indicated a slightly positive attitude to their body image in the postpartum period. The second finding was that there was no significant difference between body image attitude at two weeks and at six weeks postpartum.

A third finding, was that primiparas felt significantly more negative about their postpartal body image than did the multiparas ($p < .03$). A fourth finding was that the women in the study felt more negative about their bodies during the last three months of pregnancy than they did prior to the onset of pregnancy ($p < .01$). Fifth, the subjects indicated a more negative feeling about their body image in the postpartum period than they did prior to the onset of pregnancy ($p < .01$).

Finally, the subjects felt more positive about their body image in the postpartum period than they did during the last three months of their pregnancy ($p < .04$).

In conclusion, the findings of this study are significant because they provide nurses with more information about women's attitude toward their body image during pregnancy and the postpartum period. Nurses disseminating this information to new and prospective mothers could help the women gain a better understanding of their feelings towards their pregnant and postpartal bodies. According to Caplan (1964) this increased insight into her particular situation will facilitate the woman's ability to cope with her pregnant and postpartal situation.

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APPENDIX A

Body-Cathexis Scale (Jourard and Jaccard, 1955) as it

was modified by the investigator to become the

Attitude to Body Image Scale (ABIS)

Body-Cathexis Scale (Jourard and Secord, 1955) as it was modified by the investigator to become the Attitude to Body Image Scale

Directions

Circle below the names of some body parts. Please indicate how you feel about each of these parts of your body by using the scale below. Place the number that corresponds to your feeling about that body part in the space provided.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slightly positive feeling
4. Have no feeling one way or the other
5. Slightly negative feeling
6. Negative feeling
7. Strong negative feeling

A P P E N D I X A

Body-Cathexis Scale (Jourard and Secord, 1955) as it was modified by the investigator to become the Attitude to Body Image Scale (ABIS)

Body-Cathexis Scale (Jourard & Secord, 1955)

Attitude to Body Image Scale

<u>Body Part</u>	<u>Scale Number</u>	<u>Body Part</u>	<u>Scale Number</u>
Height	_____	Weight	_____
Weight	_____	Back	_____
Chest (or chest)	_____	Waist	_____
Waist	_____	Hips	_____
Hips	_____	Legs	_____
Thighs	_____	Feet	_____
Arms	_____	Facial appearance	_____
Feet	_____	Shoulder width	_____
Face Length	_____	Abdomen	_____
Shoulder width	_____	Hair	_____
Face Length	_____		

Body-Cathexis Scale (Jourard and Secord, 1955) as it
was modified by the investigator to become the
Attitude to Body Image Scale

Directions

Listed below are the names of some body parts. Please indicate how you feel about each of these parts of your body by using the scale below. Place the number that corresponds to your feeling about that body part in the space provided.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

Body-Cathexis Scale (Jourard &
Secord, 1955)

Attitude to Body Image Scale

<u>Body Part</u>	<u>Scale Number</u>	<u>Body Part</u>	<u>Scale Number</u>
Height	_____	Weight	_____
Weight	_____	Bust	_____
Bust (or Chest)	_____	Waist	_____
Waist	_____	Hips	_____
Hips	_____	Legs	_____
Thighs	_____	Feet	_____
Calves	_____	Facial Appearance	_____
Ankles	_____	Shoulder Width	_____
Feet	_____	Abdomen	_____
Nose Length	_____	Hair	_____
Shoulder Width	_____		
Neck Length	_____		

Attitude to Body Image Scale

General Directions

This is a study looking at how women feel about their bodies before they become pregnant, during the last three months of the pregnancy, and afterwards have had the baby.

On the following page **APPENDIX B** questions which relate to the feelings you might have about your body now that your pregnancy is over.

Attitude to Body Image Scale

Please answer each question as best you can. The specific directions to use to answer each question are included with each question.

Attitude to Body Image Scale

General Directions

This is a study looking at how women feel about their bodies before they become pregnant, during the last three months of the pregnancy, and after they have had the baby.

On the following pages are a number of questions which relate to the feelings you might have about your body now that your pregnancy is over.

Please answer each question as best you can. The specific directions on how to answer each question are included with each question.

	Strongly Negative Feeling	Negative Feeling	Neutral Feeling	Positive Feeling	Strongly Positive Feeling
Weight					
Arm					
Waist					
Face					
Legs					
Feet					
Facial appearance					
Shoulder Width					
Arms					
Back					

Listed below are the names of some body parts. Thinking back to the time BEFORE YOU WERE PREGNANT please indicate how you felt about each part of your body by using the scale below. Check the box which best indicates how you felt about each of the body parts listed.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	Strong positive feeling	Positive feeling	Slight positive feeling	Have no feeling one way or the other	Slight negative feeling	Negative feeling	Strong negative feeling
	1	2	3	4	5	6	7
Weight							
Bust							
Waist							
Hips							
Legs							
Feet							
Facial Appearance							
Shoulder Width							
Abdomen							
Hair							

isted below are the names of some body parts. Thinking back
 o the LAST THREE MONTHS OF YOUR PREGNANCY please indicate how
 ou felt about each part of your body by using the scale below.
 neck the box which best indicates how you felt about each of the
 ody parts listed.

ale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	1 Strong Positive Feeling	2 Positive Feeling	3 Slight positive Feeling	4 Have no feeling one way or the other	5 Slight negative feeling	6 Negative Feeling	7 Strong negative Feeling
ial Appearance							
s							
nder Width							
r							
s							
st							
omen							
t							
t							
ght							

Listed below are the names of some body parts. Please indicate how you feel about each part of your body TODAY by using the scale below.

Check the box which best indicates how you feel about each of the body parts listed.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	1 Strong Positive Feeling	2 Positive Feeling	3 Slight positive Feeling	4 Have no feeling one way or the other	5 Slight negative feeling	6 Negative Feeling	7 Strong negative Feeling
Legs							
Waist							
Facial Appearance							
Abdomen							
Weight							
Feet							
Hair							
Bust							
Shoulder Width							
Hips							

Listed below are the names of some body parts. Please indicate how you feel about each part of your body TODAY by using the scale below. Check the box which best indicates how you feel about each of the body parts listed.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	1 Strong Positive Feeling	2 Positive Feeling	3 Slight positive Feeling	4 Have no feeling one way or the other	5 Slight negative feeling	6 Negative Feeling	7 Strong negative Feeling
Eggs							
Waist							
Facial Appearance							
Abdomen							
Height							
Feet							
Hair							
Chest							
Shoulder Width							
Fingers							

Attitude to Body Image Scale

This is a study of how women feel about their bodies and to see whether these feelings change over time. The following is a scale which measures how satisfied you feel about your body.

Please answer the scale of page 1 on the basis of how you felt about your body about 1 year ago.

Please answer the **A P P E N D I X C** scale of how you feel about your body today.

**Attitude to Body Image Scale as presented
to the reliability study sample**

Date Today: _____

Subject's Date Respond: _____

Attitude to Body Image Scale

This is a study of how women feel about their bodies and to see whether these feelings change over time. The following is a scale which measures how satisfied you feel about your body.

Please answer the scale of page 1 on the basis of how you felt about your body about 1 year ago.

Please answer the scale of page 2 on the basis of how you feel about your body today.

	Strongly Positive Feeling	Positive Feeling	Slightly Positive Feeling	Neutral Feeling neither for or against	Slightly Negative Feeling	Negative Feeling	Strongly Negative Feeling
Weight							
Date Today:							
Subject's Code Number:							
Neck							
Legs							
Feet							
Facial Appearance							
Shoulder Width							
Abdomen							
Skirt							

Directions: Listed below are the names of some body parts. Thinking back to the time about one year ago please indicate how you felt about each part of your body by using the scale below. Check the box which best indicates how you felt about each of the body parts listed.

Scale:

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	1	2	3	4	5	6	7
	Strong positive feeling	Positive Feeling	Slight positive Feeling	Have no feeling one way or the other	Slight negative Feeling	Negative Feeling	Strong Negative Feeling
Weight							
Bust							
Waist							
Hips							
Legs							
Feet							
Facial Appearance							
Shoulder Width							
Abdomen							
Hair							

Directions: Listed below are the names of some body parts. Please indicate how you feel about each part of your body today by using the scale below. Check the box which best indicates how you feel about each of the body parts listed.

Scale

1. Strong positive feeling
2. Positive feeling
3. Slight positive feeling
4. Have no feeling one way or the other
5. Slight negative feeling
6. Negative feeling
7. Strong negative feeling

	Strong positive Feeling	Positive Feeling	Slight Positive Feeling	Have no feeling one way or the other	Slight Negative Feeling	Negative Feeling	Strong Negative Feeling
	1	2	3	4	5	6	7
Legs							
Waist							
Facial Appearance							
Abdomen							
Weight							
Feet							
Hair							
Bust							
Shoulder Width							
Hips							

Information Sheet Given to
Women in the Hospital

Research Study: New Women Feel About Their Bodies After They
Have Had a Baby

This is a request for your participation in a study of how women feel about their bodies after they have had a baby.

I am Victoria (Vicki) Strong, a registered nurse and a graduate student in nursing at Dalhousie University, Halifax, Nova Scotia. Presently I am a visiting exchange student at the University of Alberta, Edmonton. I became interested in how women feel about themselves after they have had a baby during my work as a community health nurse. I hope this study will provide information which will help women better understand how they feel about their bodies in the period following the birth of their babies.

A P P E N D I X D

Information Sheet Given to

Women in the Hospital

I would like your participation in your study after you have been discharged from the hospital. If you are still interested in participating in the study at that time, I would then like to visit you at home 2 weeks after your delivery.

At this 2 week visit I will ask you to sign a consent form and fill out a short questionnaire about how you feel about your body before you became pregnant, how you feel about your body during the last 3 months of your pregnancy, and how you feel about your body on the day that I visit. I will then visit 4 weeks later and ask you how you feel about your body the day I visit.

I require your name, address, and telephone number now so that I can contact you after you have been discharged. This information will be kept confidential and will be destroyed as soon as the study is completed. Please remember that you are under no obligation to participate in this study and that you may withdraw your consent at any time throughout the study.

If you have any questions do not hesitate to call me at 425-3525.

Information Sheet Given to
Women in the Hospital

Research Study: How Women Feel About Their Bodies After They
Have Had a Baby

This is a request for your participation in a study of how women feel about their bodies after they have had a baby.

I am Victoria (Vicki) Strang, a registered nurse and a graduate student in nursing at Dalhousie University, Halifax, Nova Scotia. Presently I am a visiting exchange student at the University of Alberta, Edmonton. I became interested in how women feel about themselves after they have had a baby during my work as a community health nurse. I hope this study will provide information which will help women better understand how they feel about their bodies in the period following the birth of their babies.

I would like your permission to call you at your home after you have been discharged from the hospital. If you are still interested in participating in the study at that time, I would then like to visit you at home 2 weeks after your delivery.

At this 2 week visit I will ask you to sign a consent form and fill out a short questionnaire about how you felt about your body before you became pregnant; how you felt about your body during the last 3 months of your pregnancy; and how you feel about your body on the day that I visit. I will then visit 4 weeks later and ask you how you feel about your body the day I visit.

I require your name, address, and telephone number now so that I can contact you after you have been discharged. This information will be kept confidential and will be destroyed as soon as the study is completed. Please remember that you are under no obligation to participate in this study and that you can withdraw your consent at any time throughout the study.

If you have any questions do not hesitate to call me at 435-0333.

Consent Form

I hereby consent to participate in the study of how women feel about their bodies after **APPENDIX E** which is being conducted by Victoria Straw.

Consent Form

I have been informed as Consent Form I am impacted of as in the study.

I understand that my name, address and telephone number will be kept confidential and that I may withdraw my consent at any time.

Signature: _____

Date: _____

Check here if you wish to receive a summary of the study after it has been completed.

Consent Form

I hereby consent to participate in the study of how women feel about their bodies after they have had a baby, which is being conducted by Victoria Strang.

I have been informed about what will be expected of me in the study.

I understand that my name, address and telephone number will be kept confidential and that I may withdraw my consent at any time.

Signed: _____

Date: _____

Check here if you wish to receive a summary of the study after it has been completed.

Body Attitude Scores

Case	Preg-nant	Preg-nant	2 weeks Postpartum	5 weeks Postpartum	Postpartum mean
P 1	2.7	2.2	2.1	3.4	2.75
P 2	3.0	2.0	2.1	4.1	2.8
P 3	3.2	3.2	4.4	4.0	4.2
P 4	4.4	4.2	3.4	3.0	3.4
P 5	2.3	4.0	2.0	2.2	2.4
P 6	2.7	3.3	3.7	3.8	3.4
P 7	2.3	4.2	3.0	2.5	2.75
P 8	2.6	4.7	3.3	2.9	4.15
P 9	2.3	3.2	3.8	3.9	3.8
P 10	2.8	2.8	2.1	2.4	2.45
P 11	2.3		2.3		
P 12	1.7	2.8	4.2	4.4	3.25
P 13	1.6	3.2	3.0	2.3	2.85
P 14	1.9	3.1	3.1	2.0	3.0
P 15	4.6	3.1	3.0	4.8	4.0
P 16	4.7	1.3	4.8	3.4	4.0
P 17	3.3	4.4	4.2	3.7	4.05
P 18	3.7	4.3	4.3	3.6	3.95
P 19	2.0	3.1	4.7	4.1	3.9
P 20	3.1	4.3	4.4	4.1	4.25
P 21	1.2	2.3	1.8	1.1	1.85
P 22	2.0	1.4	3.2	2.9	2.8
P 23	4.1	4.5	3.3	3.4	3.85

APPENDIX F

Body Attitude Scores

Body Attitude Scores

Case	Prepregnant	Pregnant	2 weeks Postpartum	6 weeks Postpartum	Postpartum mean
P 1	2.7	2.2	2.1	3.4	2.75
P 2	3.0	2.6	3.1	4.1	3.6
P 3	3.2	5.2	4.6	4.0	4.3
P 4	4.4	4.2	3.4	3.0	3.2
P 5	2.9	4.0	2.6	2.2	2.4
P 6	2.7	3.3	3.2	3.6	3.4
P 7	2.3	4.3	3.0	2.5	2.75
P 8	2.6	5.7	5.4	2.9	4.15
P 9	2.9	5.2	3.6	4.0	3.8
P 10	2.4	2.8	2.3	2.6	2.45
P 11	2.3		2.3		
P 12	1.2	3.6	4.1	4.4	4.25
P 13	3.6	5.2	3.0	2.3	2.65
P 14	1.9	2.1	3.1	3.9	3.5
P 15	4.8	3.1	3.2	4.8	4.0
P 16	4.7	3.3	4.6	5.4	5.0
P 17	3.4	4.4	4.4	3.7	4.05
P 18	3.2	4.3	4.1	3.6	3.85
P 19	2.0	3.1	3.7	4.1	3.9
P 20	3.1	4.3	4.8	4.3	4.55
P 21	1.1	2.3	1.8	2.1	1.95
P 22	2.8	3.4	3.9	3.9	3.9
P 23	4.1	4.5	4.3	3.4	3.85

Body Attitude Scores

Case	Prepregnant	Pregnant	2 weeks Postpartum	6 weeks Postpartum	Postpartum mean
P 24	3.3	3.8	4.0	4.3	4.15
P 25	3.8	4.2	4.0	3.7	3.85
P 26	3.7	4.2	4.5	3.9	4.2
P 27	1.9	2.2	2.0	1.0	1.5
P 28	4.5	3.7	3.6	4.7	4.15
P 29	2.7	4.3	3.8	3.4	3.6
P 30	3.2	3.1	2.9	2.2	2.55
M 31	2.7	4.6	3.6	3.4	3.5
M 32	2.3	3.6	4.5	4.2	4.35
M 33	2.4	4.8	3.7	2.0	2.85
M 34	1.8	2.3	1.0	2.5	1.75
M 35	3.7	4.1	3.1	3.3	3.2
M 36	2.0	2.9	3.2	2.3	2.75
M 37	1.8	5.1	4.1	3.9	4.0
M 38	3.7	4.0	3.9	3.5	3.7
M 39		3.0	2.0	1.5	1.75
M 40	2.7	1.9	3.0	3.8	3.4
M 41	2.7	4.3	4.6	3.2	3.9
M 42	1.1	4.5	1.7	4.2	2.95
M 43	3.1	4.2	4.0	3.3	3.65
M 44	1.2	1.7	1.7	2.1	1.9
M 45	3.3	3.5	3.1	3.6	3.35
M 46	1.8	3.5	5.0	3.9	4.45

Body Attitude Scores

Case	Prepregnant	Pregnant	2 weeks Postpartum	6 weeks Postpartum	Postpartum mean
M 47	2.1	2.3	1.7	3.8	2.75
M 48		3.1	3.1	3.2	3.15
M 49	3.6	2.8	3.2	4.4	3.8
M 50	3.9	3.7	3.6	2.5	3.05
M 51	6.0	2.3	2.0	2.0	2.0
M 52	2.1	2.2	1.7	2.0	1.85
M 53	4.1	4.6	3.5	4.2	3.85
M 54	1.3	4.3	3.0	4.0	3.5
M 55	3.6	4.0	3.7	3.2	3.45
M 56	2.6	3.3	2.8	4.1	3.45
M 57	2.2	4.6	3.3	2.5	2.9
M 58	2.4	2.5	2.6	1.9	2.25
M 59	4.0	3.6	3.5	4.3	3.9
M 60	4.0	5.0	4.2		
M 61	3.2	3.4	3.6	3.1	3.35
M 62	3.7	4.3	4.4	4.3	4.35
M 63	2.3	2.9	3.3	3.1	3.2